

Desert

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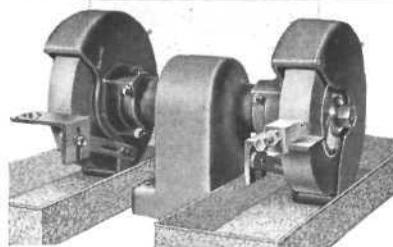
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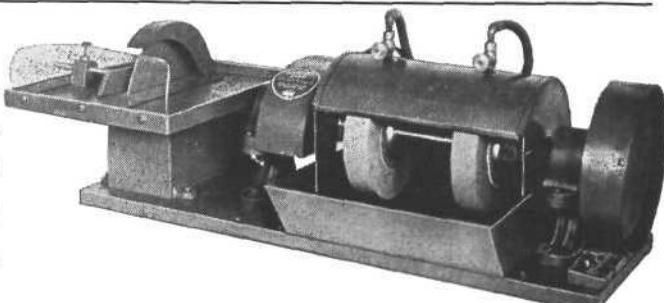
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DESERT CALENDAR

Sept. 1-5—Annual Rodeo, Silver City, New Mexico.
 Sept. 2 — St. Stephen's Fiesta and ceremonial dances, Acoma Indian Pueblo, New Mexico.
 Sept. 3-6—Onion Days Rodeo, Payson, Utah.
 Sept. 5-7—Rodeo and County Fair, Socorro, New Mexico.
 Sept. 5-7-'49 Show and parade, Fallon, Nevada.
 Sept. 5-7 — Nevada Rodeo, Winnemucca, Nevada.
 Sept. 5-7 — Desert Peaks Section, Southern California Chapter, Sierra Club climb of Mt. Jefferson, Nev.
 Sept. 5-7—Old Time Mining Celebration and Hermit's Convention, Randsburg, California.
 Sept. 6-7 — World Champion Steer Roping, Clovis, New Mexico.
 Sept. 6-7—Labor Day Rodeo and parade, Benson, Arizona.
 Sept. 6-7—Lion's Club Rodeo, Williams, Arizona.
 Sept. 6-8—Harvest Dance, San Ildefonso Pueblo, New Mexico.
 Sept. 7—Round Valley Junior Rodeo, Springerville, Arizona.
 Sept. 10-12 — Southern Utah Livestock Show, Cedar City, Utah.
 Sept. 10-13 — Antelope Valley Fair and Alfalfa Festival, Lancaster, California.
 Sept. 12-14 — Valencia County Fair, Belen, New Mexico.
 Sept. 11-13 — Navajo Tribal Fair, Tribal Fairgrounds, Window Rock, Arizona.
 Sept. 12-20 — Utah State Fair, Salt Lake City, Utah.
 Sept. 15 — Ceremonial races and dance, Horse Lake and Stone Lake, Jicarilla Apache Reservation, New Mexico.
 Sept. 16 — Mexican Independence Day, Las Cruces, New Mexico.
 Sept. 16-19 — Curry County Fair, Clovis, New Mexico.
 Sept. 17-19—Lion's Club 19th Annual Rodeo, St. George, Utah.
 Sept. 18-20—San Juan County Fair, Farmington, New Mexico.
 Sept. 18-20 — Colfax County Fair, Springer, New Mexico.
 Sept. 19—Annual Fiesta and dances, Laguna Pueblo, New Mexico.
 Sept. 19-20 — San Miguel County Fair, Las Vegas, New Mexico.
 Sept. 19-20 — Desert Peaks Section, Southern California Chapter, Sierra Club climb of Mt. Tom in the High Sierra. Climb from camp at Horton Lake, near Bishop, Calif.
 Sept. 19-21 — Hidalgo County Fair and Sheriff's Posse Rodeo, Lordsburg, New Mexico.
 Sept. 23—Roosevelt County Fair and Rodeo, Portales, New Mexico.
 Sept. 24-26—Quay County Fair, Tucumcari, New Mexico.
 Sept. 24-28—Dona Ana County Fair, Las Cruces, New Mexico.
 Sept. 26-27 — Barstow Rodeo, Barstow, California.
 Sept. 26-Oct. 4—New Mexico State Fair, Albuquerque.
 Sept. 29-30—Fiesta of San Geronimo, Sundown dance, Taos Pueblo, New Mexico.



THE *Desert* MAGAZINE

Volume 16

SEPTEMBER, 1953

Number 9

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Native palm trees grow in little clusters along the stream which tumbles down the precipitous gorge from Tahquitz Mountain. Huge boulders had to be detoured, and a constant watch kept for the vicious catsclaw which grows in this canyon.

Seldom Seen Canyon in the San Jacintos

By RANDALL HENDERSON
Map by Norton Allen

THE OLD-TIMERS who gave names to the many delightful canyons at the desert base of the San Jacinto Mountains in Southern California, did an excellent job as far as they went.

Tahquitz Canyon was named after one of the Cahuilla Indian gods. Andreas Canyon honors the name of a former tribal chief. Murray Canyon honors the memory of Dr. Welwood Murray, the pioneering Scotsman who first envisioned Palm Springs as a health resort.

But the name-makers evidently ex-

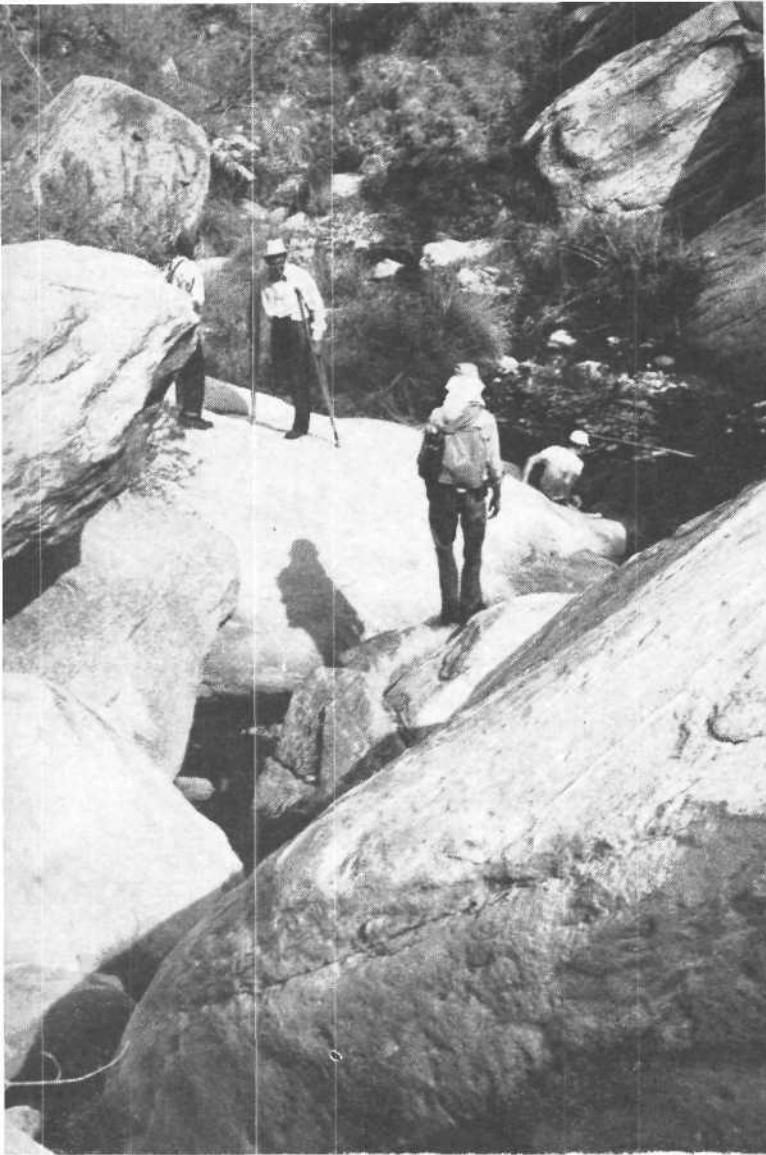
hausted the list of local celebrities before they got around to all the pretty canyons in that vicinity—and when they came to a precipitous gorge that cuts back into the range just south of Murray Canyon, they put it on the map as just plain West Fork—presumably West Fork of Palm Canyon, for it really is one of the tributaries of Palm Canyon.

Over a period of years I have made many inquiries regarding West Fork. Is there a trail up the canyon? Is there a good water supply? Palm trees? Indian campsites?

There are waterfalls and crystal pools and wild palm trees in the West Fork of Palm Canyon—but few hikers have ever seen them. For the climbing difficulties are many, and the canyon is inhabited by one of the most vicious of all the desert shrubs—the catsclaw. Here is the story of what a party of Sierra Club explorers found in this little known gorge near Palm Springs.

I have asked these questions of old-timers, of dude wranglers who ride the trails around Palm Springs, and of the Indians. I have never found anyone who knew anything about West Fork.

And that was how matters stood several months ago when the schedule committee of the Sierra Club, Southern California chapter, asked Jim Gorin and me to lead a weekend outing trip somewhere on the Colorado Desert—the locale of the hike to be selected by Jim and myself.



Although handicapped by the accidental loss of a leg, Trail Leader Jim Gorin is one of the most active mountaineers in the Sierra Club.

Jim agreed with me that West Fork would be an interesting place for an exploratory hiking trip. With a group of experienced outdoor people as companions, we would learn more about this little known canyon of the San Jacintos.

The date set for the outing was Sunday, April 19. We obtained a permit from the Agua Caliente Indians in Palm Springs to camp on their reservation, and on Saturday night, April 18, 76 members of the Sierra Club, most of them from the Los Angeles metropolitan area, had arrived with their bedrolls for the overnight camp that would precede the canyon trip.

An informal campfire program was staged that evening, just below "The Bench" which marks the end of the road in Palm Canyon. The Sierrans are veteran campers, and had brought a guitar, two accordions and some clown music to add to the gaiety of the occasion.

The more serious part of the program was devoted to a discussion which brought out interesting information regarding the Cahuilla Indians on



In the upper right is "The Bench" where thousands of motorists park their cars every season while they follow the trails in Palm Canyon.

whose reservation we were spending the weekend. The name Cahuilla formerly was spelled Coahuilla. According to an estimate published in 1853, this tribe with 2000 members, was one of the largest Indian bands in California, with habitations extending from Warner's ranch along the desert side of the high Sierra and on the floor of the desert as far north as San Gorgonio Pass. They belong to the Shoshonean linguistic group.

A most exhaustive study of these Indians was made in 1896-97 by David P. Barrows who later became president of the University of California. Barrows spent several months with the tribe, and his monograph titled *The Ethno-Botany of the Coahuilla Indians of Southern California* was accepted in his candidacy for the degree of doctor of philosophy by the University of Chicago in 1897. Dr. Barrows' informative paper has long been out of print.

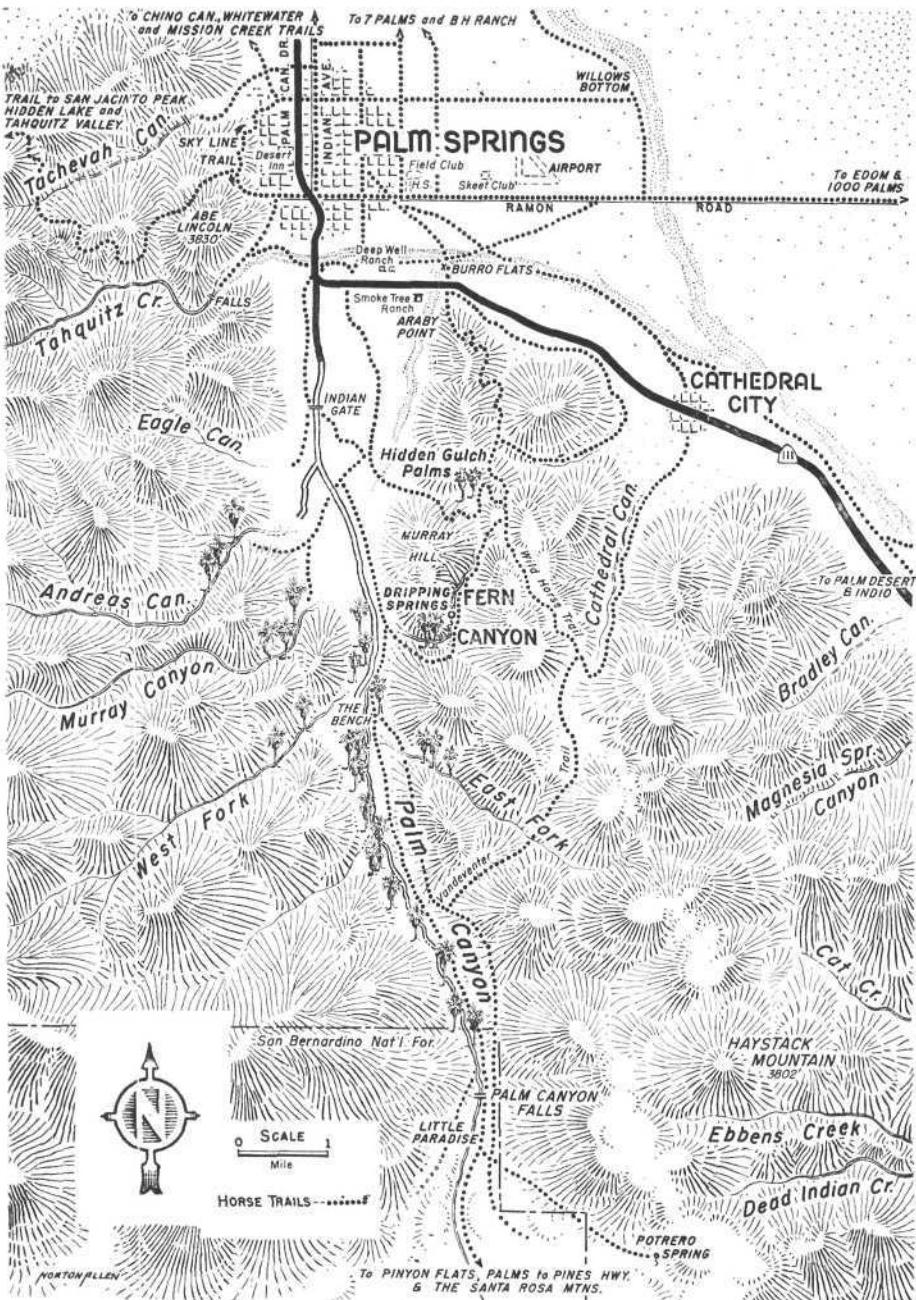
Today the remnants of the original Cahuillas occupy small reservations in Coachella Valley and the adjacent mountain area. The Palm Springs

branch of the tribe is known as the Agua Caliente Band of Mission Indians. There are 28 adults and 55 children in the band and they own 31,356 acres of land, acquired by treaty with the United States government.

At the time this reservation was established the Southern Pacific railroad company already had been granted all the odd numbered sections of land in Coachella Valley as a subsidy for building its transcontinental railroad. The Indians then were given approximately 60 even-numbered sections in and around Palm Springs, their reservation being a huge checkerboard tract. Recently the tribal council refused an offer of nine million dollars for the tribal holdings—a sum equivalent to over \$100,000 for each member of the tribe, including the children.

Under the present program of the U. S. Bureau of Indian Affairs the more valuable Indian land in and adjacent to Palm Springs is being allotted to individual members of the band, and the remainder will continue to be held as tribal property.

The tribe has considerable income



from rentals and other sources. One of these sources is the 50-cent charge collected from each person visiting Palm Canyon during the winter season. The canyon is closed during the summer months.

The Sierra campers who planned to participate in exploration of West Fork, motored from the campsite to the Bench parking area at 8:15 Sunday morning. Jim Gorin had been designated as trail boss. Despite the fact that he lost one leg in an accident many years ago and uses two crutches constantly, Jim is rated as one of the most active mountaineers in the Sierra Club and he is a popular leader on outing trips.

At the Bench a trail leads to a scenic waterfall at the entrance to West Fork—a distance of less than 100 yards. Many visitors to Palm Canyon take this short side-trip to the waterfall.

But the trail ends abruptly where the stream gushes through a huge pile of granite boulders forming the fall—and few persons have tried to go beyond that point. The reason is obvious. Further progress can be made only by hand and toe climbing up a steep crevice. And having reached the top of the crevice 100 feet above, the climber faces a precarious descent on the other side.

For security reasons, Jim Gorin uncoiled his rope for the descent, and most of the hikers used a rope belay to reach a safe landing below.

From this point, members of the party continued up the canyon approximately two miles to where the stream climbs sharply up the east slope of Tahquitz Mountain and has its source in a series of springs. It was never again necessary to use the rope, but there were places where dry rubber-

soled shoes were necessary for safe progress.

We passed three lovely waterfalls on the way up, two of them much more spectacular than the fall at the mouth of the canyon. At two places it was necessary to detour up out of the gorge when almost vertical walls of granite blocked the way. We passed some crystal pools where it was a great temptation to stop for a dip in the cool water, and some members of the party had brought bathing suits in the hope of finding such places. But due to the steepness of the canyon and the heavy growth of willow, catsclaw and other species of brush, the going was very slow and those of us who planned to go the full length of the canyon never felt that we could spare the time for a plunge.

Our starting point on the Bench was at an elevation of 750 feet. Two hours later we had climbed and bucked our way up to the 1500-foot level where the Upper Sonoran zone plants began to appear—jojoba or goatnut, ephedra, agave, nolina, wild apricot and others. We found much salmon mallow in blossom, and large patches of yerba santa were in gorgeous purple bloom.

Most conspicuous among the plants of the West Fork were the native *Washingtonia filifera* palms. We found them growing along the entire two miles—not in dense forests, but scattered along at intervals in twos and threes and occasionally a cluster of a dozen or more. With a fine water supply, they have the rich green fronds of a healthy tree. Some of them I would judge to be veterans of 200 years or more, and all of the older trees had been burned, some of them as recently as eight or ten years ago. Fire merely burns the dead fronds. It seldom kills the tree. Because of the inaccessibility of this canyon I am sure its fires have been caused by lightning rather than by human vandals.

I counted 214 trees of more than three feet in height. There are at least that many more smaller palms. I am glad to report that this is one of the canyons in which the palm population is increasing—that is, new growth is coming along much faster than the old trees are losing their crowns because of old age. Some of the trees were carrying heavy loads of mature seed.

Next to the palms, the most conspicuous tree in West Fork is the native sycamore. There are also many mesquites, both honey and screwbean—and many, many catsclaws. The thorns of the catsclaw are among the most vicious things on the desert, and as far as I am concerned, more to be feared than rattlesnakes.

I am sure others had preceded us



Tough canyons are all in the day's play for Sierra Club hikers.

up this gorge, but we saw no telltale evidence—not a tin can, nor a film foil, nor the slightest trace of a trail until we were well up toward the headwaters of the creek when we climbed to the ridge above. There we saw wild game trails—the tracks of deer and bighorn sheep. Also of horses and cattle which evidently had wandered up there from pasturage in one of the other San Jacinto canyons. It is certain they did not come up the West Fork. That is a canyon which can be traversed only by goats and humans.

We did not go all the way to the headwaters of the creek, which evi-

dently has its source far up on the side of Tahquitz Mountain. But from the ridge above the stream we could trace the drainage to high up in the rocks where no doubt are located the springs from which this water supply comes. I am quite sure we got a complete count of the palm trees in this canyon, including a little group of 15 up on a hillside above the creek, evidently watered by an underground seepage.

We ate lunch beside the creek and then continued to the 2240-foot elevation before turning back along the ridge on the south side of the canyon.

Most of the canyons which are reached from the floor of the Coachella

Valley in California have some evidence of prehistoric Indian habitation — pottery sherds, morteros, petroglyphs or the pieces of broken flint and obsidian which often mark an ancient campsite. I looked in vain for such evidence in the West Fork. I am sure the Indians have been there. But probably they did not fancy this canyon any more than do the white men today. For it is generally reported that the prehistoric tribesmen of the desert country did not wear many clothes—and I have a feeling that those vicious catsclaw barbs were just as painful to the hide of an aborigine as they are to a Sierra Club hiker in 1953.

This sign marks the entrance to Palm Canyon where the West Fork tributary joins the main gorge.

this is the World Famous **PALM CANYON**

THE MOST BEAUTIFUL SPOT IN THE PALM SPRINGS AREA..... FIFTEEN MILES LONG.... THIS CANYON CONTAINS MORE THAN 3000 NATIVE PALMS OF THE NEOWASHINGTONIA-FILIFERA VARIETY WHICH ATTAIN AN AGE OF 2500 YEARS..... CENTURIES BEFORE ANY WHITE MAN SAW THIS AREA, A GROUP OF INDIANS OF THE SHOSHONIAN LINGUISTIC FAMILY LIVED PEACEABLY IN THESE CANYONS AND HILLS WHERE WATER AND GAME WERE PLENTIFUL... THE FEW REMAINING MEMBERS OF THIS MISSION BAND ARE NOW SETTLED ON THE 32000 ACRE RESERVATION OF WHICH THIS IS A PART... MOST OF THESE INDIANS NOW LIVE IN AND AROUND PALM SPRINGS....

This scenic recreation area is operated by the Agua Caliente Band of Mission Indians for the enjoyment of the public. Please use extreme **CAUTION REGARDING FIRE**. In 1939 fire swept part of the Canyon... another fire might destroy it for generations.



In Monument Valley

THE DESERT

By MONA MARIE HILL
South San Gabriel, California

"Desert Rat," that's what they call me,
And I s'pose that's what I am;
Been huntin' gold for twenty years now,
Just me and my burro, Sam.

I've seen Spring come to the desert;
Sage brush growin' brighter green,
Cactus buds all set to open,
Colors fit for any queen.

I have seen it in the Fall-time,
When the harvest moon hung low,
White sands driftin', seem a-whisperin'
With the gentle winds that blow.

I have seen it in the Winter,
When the winds blew bitter cold,
Chillin' to your very innards—
Made you feel you're growin' old.

But at noon-time in mid-summer,
When it's been dry quite a spell,
Water holes dried up and stinkin';
Say, it's like the gates of hell.

PROSPECTOR'S GRAVE IN DEATH VALLEY

By PAUL WILHELM
Thousand Palms, California

Night winds are rising and their fiery breath
Shrieks through the moving sand dunes
bleak and drear,
The chanting Utes stand trembling at your
death
In these burnt wastes. Prospector, can you
hear
The Funerals' ridge wings, beating down-
drafts, spill
Stone clouds on your sepulchral hill
Off Panamint, where barking coyotes slink,
The blowing greasewood with the hunter's
tread,
And screeching owls, defying storm, are led
To dune drifts; off Zabriskie where the sink
Of Death Valley traps travelers too long
With silence? Winds move the sand,
Prospector, hunting you, and the teeth slash
At the wind's throat and wring it in the
clash
Of midnight in this graveyard where the
band
Of Utes chants for a clansmen's sacred
bones
Lost now by wind's wings under the moving
stones.

DESERT RAIN

By MADELEINE FOUCHAUX
Los Angeles, California

Skyward the mountains rear their ashen
piles,
Gray are the thorny shrubs, the dusty sand;
The desert stretches drab and dreary miles
Across the colorless, sun-faded land.
Then comes the rain, and every rocky head
Is washed and painted fresh in myriad
hues—
Deep brown and purple splashed with black
and red,
Lavender, russet, clean metallic blues.
The cholla flaunts its spines of palest gold,
Saguars lift their arms in sleeves of green;
Yellow as wheat the dunes, and from their
hold
Gnarled branches half-emerge in silvery
sheen.
The rich earth colors of a rainy day
Betoken springtime's blossoms on the way.

SYMPHONY OF SILENCE

By ALBERT KEEN
Portland, Oregon

When the desert shadows lengthen
And the sunlight fades away,
Comes the Symphony of Silence
At the end of pleasant day.
Silently the darkness gathers,
Stars as silently appear,
Filling all the heaven's vastness
With a beauty sharp and clear.
There's no place for fear or worry,
Dread of no dictator's might,
As the Symphony of Silence
Fills the peaceful desert night.

Gates Ajar

By TANYA SOUTH

Today is rich with promise. Life
Resounds with triumph and with
pleasure,
With opportunities so rife,
That human powers cannot measure.

Today the Gates of Heaven stand
Open to all on sea or land—
A pity that the Gates of Hell
Have swung so open wide as well!

Navajo Evening

By VIOLET EMLIE OSLER
Tucson, Arizona

Here in the desert live the lonely ones,
In sage and cedars and the painted sand:
Here through the ages endless setting suns
Have ushered evening through this patient
land.

Here in the reaches of red canyon walls,
Of weary miles beyond the mesa's rim,
Moccasined feet turn homeward; somewhere,
calls

A vagrant creature, purple shadows dim.
Across the dark vault of the sky is heard
The whish of monstrous wings; a band of
sheep

Is slow to move, so gently are they spurred
By fingers of the wind—and night—and
sleep.

But patient feet can be swift when day is
done—
And a Hogan is home to many a weary one.

BUZZARDS

By GRACE B. WILSON
Kirtland, New Mexico

Dark, wide-winged birds are circling high
Above the empty desert's dusty face.
They seek the carrion that will gratify
Their hunger; in this god-forsaken place,
Though, there is little but a coyote's kill,
Or hapless snake, or crawling lizard there.
And yet those birds are circling, circling
still,
And waiting on wide wings in the high air.

LOVELINESS IN THE DESERT

By LENA GAMBLE BIXLER
Tucson, Arizona

I found loveliness today,
Down the sandy plains of desert way,
Saw its beauty in the tall saguaro,
Heard it whisper through my sorrow,
Felt its warmth in glad sunshine,
Caught its rhythm in the sprawling vine.
All along the desert highway
I found loveliness today.

I found loveliness today
Down the sandy plains of desert way,
Saw its beauty in the Verde green,
Bluest skies with clouds of silver sheen,
Scented odor from the greasewood rose,
I found peace where the cactus grows.
All along the desert highway
I found loveliness today.

SANTA CATALINA NOCTURNE

By VIOLET EMLIE OSLER
Tucson, Arizona

Only the moon rides tonight in the Catalinas,
And a warm wind brings a breath of the
desert air
To the lofty peaks where long ago, wild
Apaches
Stealthily set signal fires burning there.

Up from the desert come marching the great
saguars
Like shadowy giants intent upon evil ways,
And the stars peer down with a gleam that
is eternal,
Watchful and silent, remembering other
days.

Slowly the night dreams on and in the
shadows
The silence waits for the quiet dark to wane,
For only the moon rides tonight in the
Catalinas
And the ghost of a lone Apache waits in
vain.



Near the summit of Crystal Ridge in the newly discovered area of quartz crystals and limonite cubes, Jay Ransom Sr., left, and Mr. and Mrs. George Green stop for a breather.

Crystal Field at Quartzsite

Long a favorite hunting ground for quartz crystal collectors, the area near Quartzsite, Arizona, originally mapped for Desert Magazine by John Hilton in 1942, still holds almost unlimited possibilities, according to a recent exploration by Jay Ransom and his father.

By JAY ELLIS RANSOM
Photographs by the author
Map by Norton Allen

EVER SINCE John Hilton's article "Bee Cave Lined with Crystals" appeared in *Desert Magazine* in April, 1942, describing his fruitless hunt for limonite cubes only to discover a bonanza in quartz crystals, I've wanted to prospect the area south of Quartzsite, Arizona.

Western Yuma County is notably mineralized, attested to by the great number of mines dating back to Spanish times. Like others before me, I've often cast a curious eye toward the ragged Kofa Mountains and the Castle Dome monoliths along the southern horizon, viewed from U. S. Highway 60-70 between Blythe, California, and Salome, Arizona.

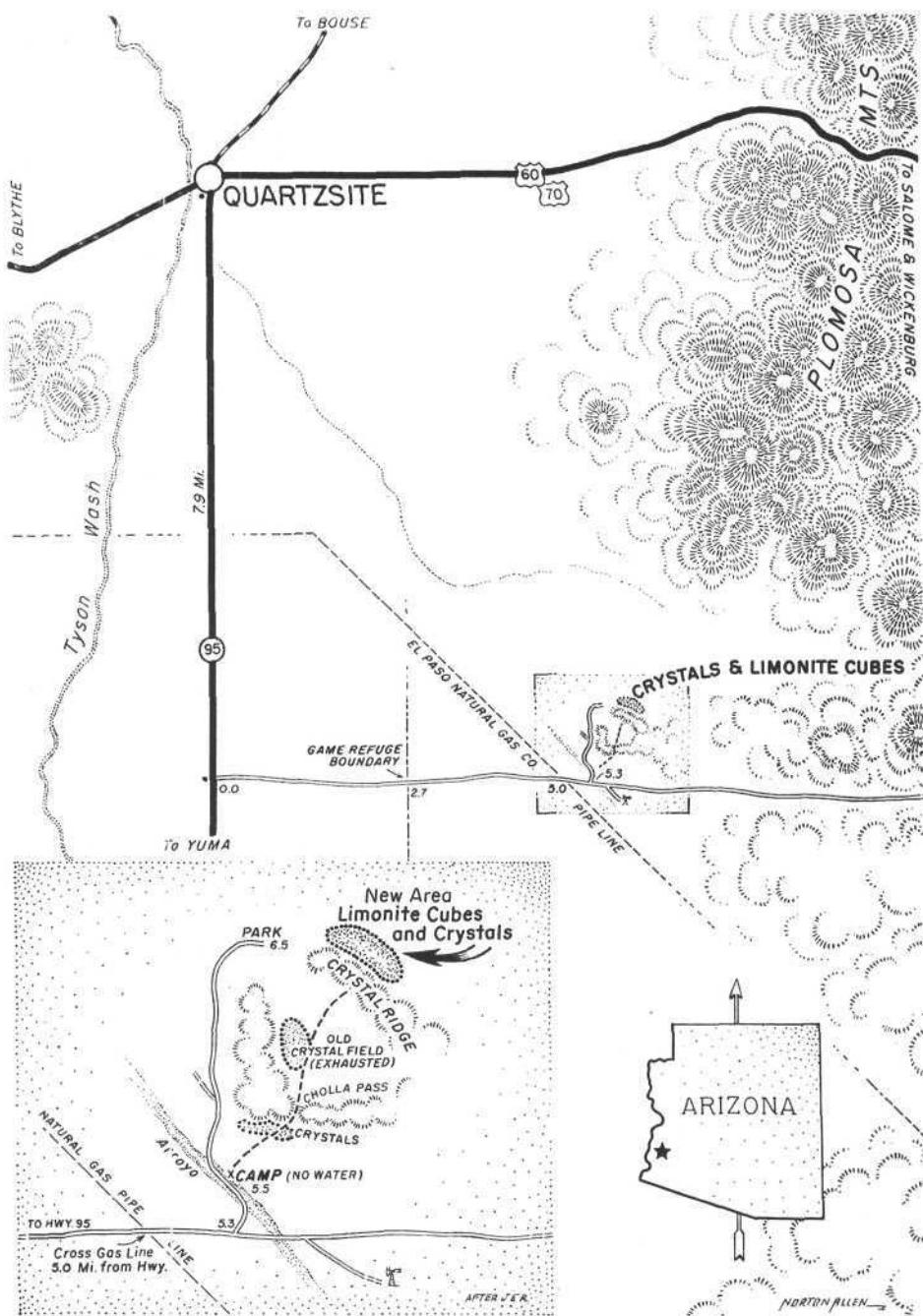
It's rugged country, any way you look at it. What roads exist seem better adapted to four-footed bovines than to wheeled vehicles. Nevertheless, my mineralogist father and I recently turned south from the crossroads community of Quartzsite onto U. S. Highway 95 resolved to track down a rumored location of limonite cubes.

We followed the oiled road with many dips south from Highway 60 almost exactly eight miles to an unmarked junction where a dirt road takes off to the east. It traverses a thin forest of palo verde trees, ironwood and giant saguaros.

Ocotillo was putting on its leaves in the mid-January sunshine as we turned

onto the ungraded road. Cholla glowed with a bright pale green like chemical fire blanketing the flats as we passed the boundary markers to the Kofa Game Refuge at mile 2.7. At mile 5.0 we crossed the right-of-way of the El Paso Natural Gas Company — the famous Texas Big Inch pipeline that brings natural gas to Los Angeles. At mile 5.3 the road forked, and following word-of-mouth directions to keep left, we turned north into a dry wash. Several sharp dips caused our car to drag its tail pipe, but dodging the worst rocks we emerged at mile 5.5 into a very fine, comfortable natural campground in a grove of palo verde trees. Ironwood sheltered the area along the rim of the wash intermingling with mesquite strung with dry crackling pods at that time of year.

Except during cloudbursts the wash is dry and visitors must carry enough water to last them. Making camp, with the sun dropping in a lustrous orange glow over the distant ranges and purpling the Kofas to the south with mys-



terious, haunting shadows, we bivouacked for the night. Ransom Senior set up the camp cots and laid out our sleeping bags while I gathered palo verde limbs for the cozy campfire we always build when nighting on the desert.

It was mid-January. A gentle breeze rustled the mesquite pods and sent a fluttering of ironwood leaves over the camp. In the rapidly deepening darkness, we hunkered down on our heels to eat beans spooned out of a hot can, bread and jam, cheese and tinned meat, washing it down with boiling coffee poured from an iron pot.

Nature does some strange things with her raw materials. With silica (silicon dioxide) composing 60 percent of the earth's crust, deposits of gem quartz are found in rocks of all

ages and of nearly every type. Deposition of agates, filling of cavities with drusy quartz, or the vein production of some of our finest examples of crystallized quartz are all brought about through the agency of percolating ground waters, particularly where granite rocks and granite pegmatites occur.

In the morning, with sunlight etching every draw and arroyo in sharpest detail, I noted how rich the land seemed with the very formations which are most likely to produce gem quartz.

Breakfast over and everything stowed in the car, we began our exploration of the area. For those who like to seek rocks on their way, I would advise camping at the designated campground rather than driving another mile over a makeshift road to its end, and hik-

ing the quarter mile to a clearly defined pass over the nearest finger ridge of malapai. A well defined trail crosses this pass, which because of the treachery of the beautiful but vicious plants which grow profusely on both sides, I've termed Cholla Pass. All the way the ground is covered with the gleaming white chips of quartzite. This substance is really a conversion of sandstone through crystal growth of a silica solution percolating through sand, and is a good prospecting indication.

It is among these chips that the glass-clear perfect crystals have been found, ranging in size from $\frac{1}{8}$ inch diameter to two inches. "A lot of marvelous specimens have been picked up along both sides of this ridge," Dad explained as we made our way around clumps of cholla that awaited the slightest misstep to lance our thighs with their "jumping" spines.

All along the ridge enroute to the pass we found prospect holes from one to five feet deep, where hunters before us had mined veins of the best stuff with pickax and elbow grease. Their reward had been beautiful crystals, finger size or larger, with smooth glass-clear planes and diamond-sharp hexagonal prisms at one or both ends. They are found in a yellow clay surrounding the veins where, in old fractures in the earth, percolating silica grew into perfectly formed hexagonal crystals.

Pausing at the summit of the low pass for a breather, with the morning sun warm now on our backs, we looked to the northeast. Beyond the pass, the land drops into a circular cul-de-sac which opens to the northwest and the end of the auto road. There we made out the gleaming aluminum of three trailer outfits showing that we were not alone in our search for gem stones.

Approximately a quarter mile across the flats toward the northeast, estimated from the rock marker somebody constructed on the crest of the pass, is a low range of raw andesitic hills that bear the deep red coloration of hematite. Viewed from the pass itself this Crystal Ridge is almost invisible against a high jagged backdrop of mountains.

As we descended along a good trail white with quartzite chips, we saw several rock hunters slowly making their ways along the base of the distant ridge, stooped over in the familiar half crouch of those whose eyes have become perennially glued to the ground. I was beginning to feel the stoop in my own shoulders when we caught up with Mr. and Mrs. George W. Green, of Tacoma, Washington. When we'd introduced ourselves as being originally from Aberdeen, Wash-

ington, we burst into a rash of discussion about rock club friends we all knew.

The Greens were a jolly, fun-loving couple—both confirmed rock collectors. "We spend six months every year roaming after rocks in the Southwest," George Green laughingly explained. "So far, this winter, we've traveled 11,000 miles."

While we rested, four more visitors climbed the ridge to join us. "Harry and Charles Livingston and wives," one of the men introduced themselves. "From Yelm, Washington. That's just outside of Tacoma."

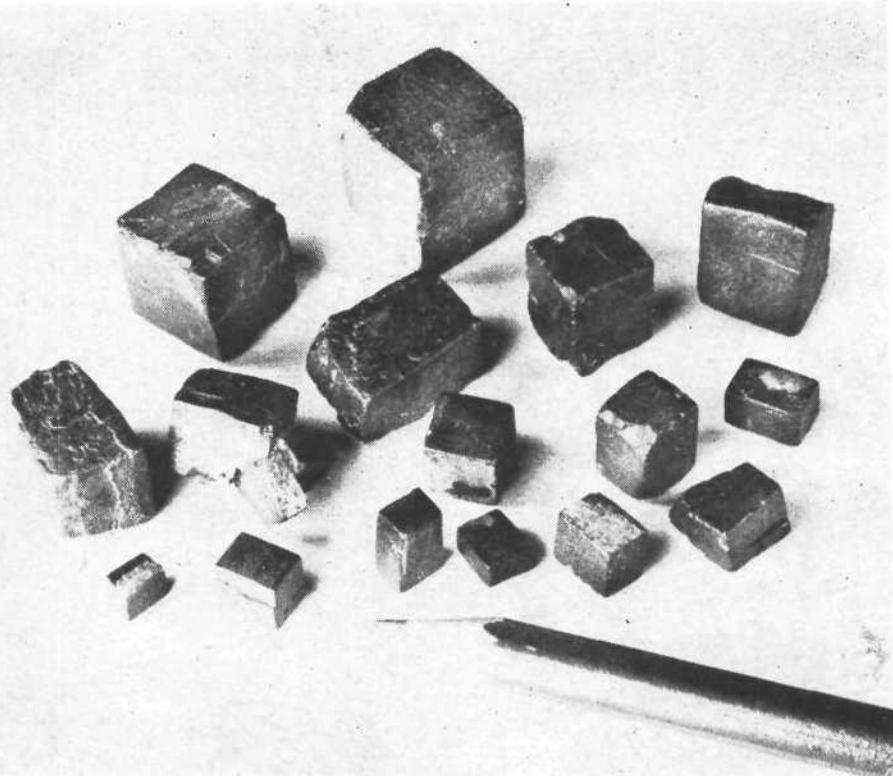
"Good night," I observed aloud. "This must be a Washington field day!" We laughed, sensing the comradeship of rockhounds even though none of us ever had met before.

Somewhere back along the ridge Mrs. Green had picked up some interesting specimens of calcite crystals capped with quartz. Nobody had yet found anything spectacular in the way of gem crystals, and of limonite cubes we hadn't even found a chip. "Looks as if either this area's been pretty well picked over, or else we haven't found the right spot," Mr. Green grumbled. "Wonder what's on the other side of this ridge."

"Only way to find out is to climb over," his wife replied with spirit. "I'm going to try it." She led the way over the knife crest, and just below it, on the northeast side, I found the first really fine crystal, a little teardrop gem a half inch in diameter and nearly an inch long, exquisitely pointed and clear as cut diamond.

"Might as well start prospecting here," I said. "Where there's one good one, there must be more."

Mr. and Mrs. George W. Green of Tacoma, Washington, and the traveling cab they built for their rock collecting expeditions.



Limonite cubes are plentiful in some parts of the area, but it requires a sharp eye to detect them.

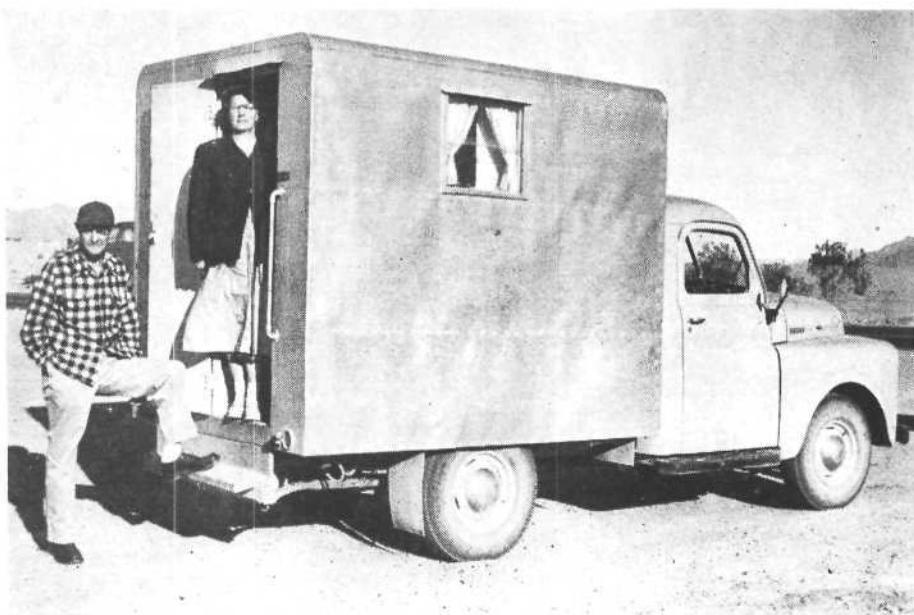
There were. In the brilliant sunshine, scattering down the steep draws that headed up the ridge and over the broad flats beyond, a million diamond-pricks of light made us catch our breaths. Erosion seemingly had washed them out of the veins that project from the basal granite formations, scattering them over the raw desert so that, facing into the sunlight, one could watch them sparkling and winking like stars in a midnight sky, for the native

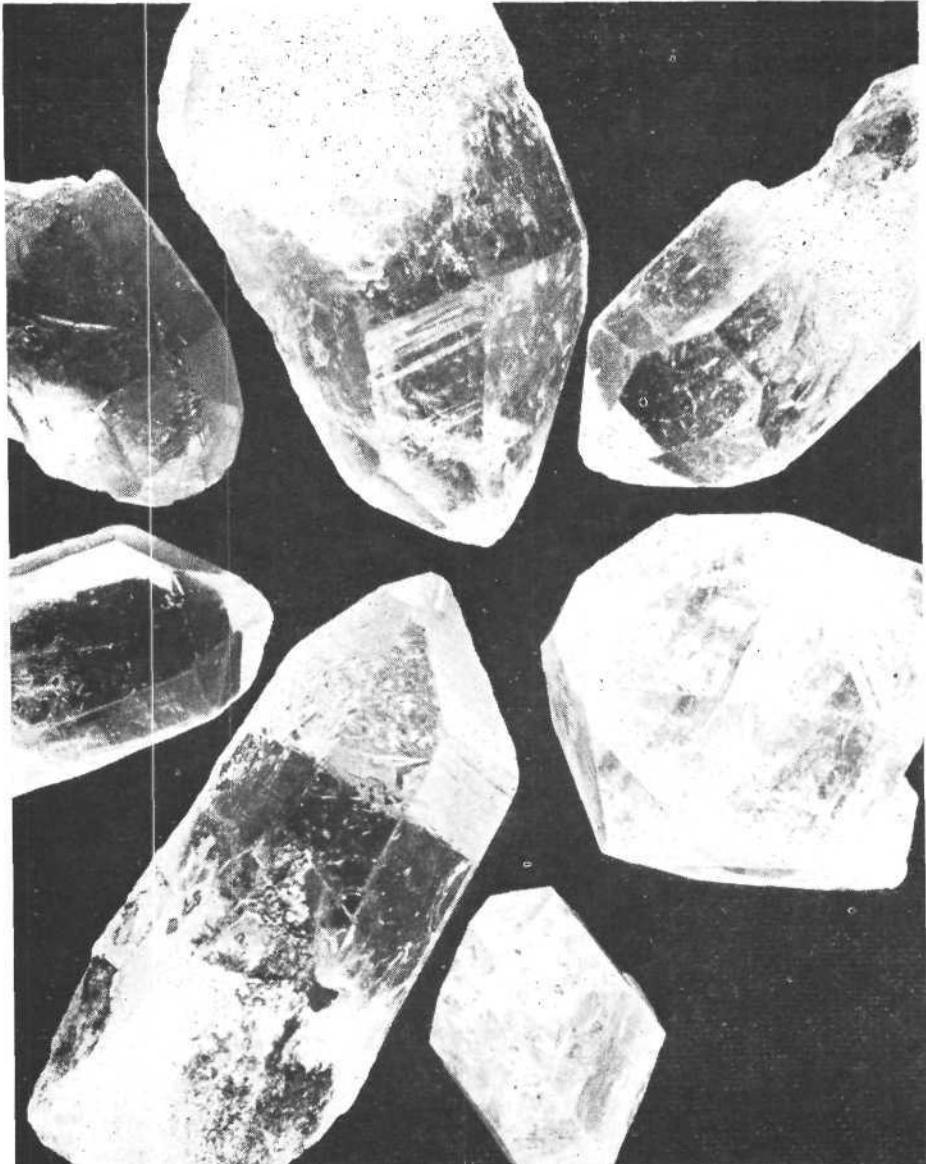
rock seemed as black with desert varnish as the night sky.

Then Dad discovered the first limonite cube, a small dark object, rectangular, with sharp straight edges a quarter of an inch on a side, stained with a telltale yellow ochre.

Again we gathered about the finder, exclaiming over the perfection of the tiny pseudomorph after pyrites. The Greens had never seen such cubes before, but presently we were finding dozens of the exquisite cubes over the same area occupied by crystals. Unlike the glinting brilliance of crystal, the limonite cubes were far more difficult to detect in the miscellany of reddish black native rock. Most of those we picked up in the space of a half hour were cubes and rectangular solids from an eighth to one and a half inches along an edge, but all were fine specimens. Since the native rock is a brown-black manganese and iron stained malapai, i.e., a relatively soft sandstone, fractured and thoroughly scattered over the area, the tiny cubes are inconspicuous indeed. Evidently this unique evidence of iron ore must have had some other origin than the crystals because limonite deposits are usually high in aluminum and low in silicon.

After an hour of easy hunting, tracing down erosional paths, we had enough treasure and headed back for camp. Although limonite cubes are not nearly as spectacular as the diamond-





Quartz crystals in detail showing planes and striations. Both single and double terminations occur, and an occasional phantom crystal is found.

like crystals. I was much interested in them. Being essentially hydrous ferric oxide, limonite occurs in earthy form as ochres, and the color is so identical to the ground rock in which they are found, that one must literally get down on his knees and study the ground at close range to detect the angular cubes.

Textbooks define limonite as bog ore, or brown hematite, containing 59.8 percent of iron with impurities of sand, clay, manganese, phosphorus, etc. The cubes we found seem to be its only crystal form. It might be added that limonite ore is one of our most abundant iron ores, and the earthy ochres are used in cheap paints, sometimes after burning to a darker color.

Limonite originates from iron pyrites through oxidation, leaching and precipitation. Since pyrites come in cubes, those we found were evidently simple replacement forms. It is inter-

esting to note the geologic observation that limonite ore is still being formed at the present time in swampy areas all over the country.

While quartz crystals lay scattered over the flats like teardrops of the gods, the limonite cubes appeared to be concentrated below the crest of Crystal Ridge from 25 to 50 feet down. I found some double and triple cubes, the way pyrites occur, and in general, I observed that where one was found, several could be picked up by careful study of the immediate area.

The Greens invited us to return to their trailer truck and have lunch. There George took pleasure in describing how he had built the housing arrangement on his truck for a total cost of \$200. "All I've got to say," I opined enviously, "is that you've made an ideal camp unit with home comforts at a minimum of space and inconvenience."

While we ate a delightful lunch of home canned Washington salmon, blackberry jam, Grays Harbor cheese and coffee we talked rocks.

"If you're going to tell others about this new area through *Desert Magazine*," remarked Mr. Green, "I sure hope you'll ask 'em to go easy wherever they hunt rocks. I always like to leave something for the next fellow! That's why we only gather a few specimens, then move on to some other field. Spread out the joy of collecting among as many people as possible."

As Dad and I walked back over Cholla Pass, winding among the greening ocotillo and the organ pipe cactus, I felt that our visit after limonite cubes and crystal teardrops had been a complete success. The thought occurred to me that since Hilton's bee cave lined with crystals lay nearly 11 miles farther east, it might pay future collectors to prospect all along the ridges and malpais in between.

Quartzite seems to occur every where, a promise of gem stones in the abundance of silica obviously weathering out of the hills. The area is largely unexplored and should give rise to extensive fields and veins outcropping with considerable promise. This may be the eternal prospector's dream. Some of the specimens I've seen in collectors' hands are perfect six-sided crystals one and a half inches in diameter and four inches long, clear as spring water. It will always seem incredible to me that such perfect examples of gem quartz can be picked off the desert hillsides at random.

Crystal carrying ledges crop out seemingly everywhere between the Plomosas, Kofas and Castle Dome Mountains, needing only extensive exploration. In places the gleaming teardrops weather out of clay-filled lenses or veins, so that with a little digging visitors should never want for satisfactory hunting.

As Hilton described in his earlier report, the crystals we picked up range from clear and water white through snowy white to a light amber, almost citrine. Some specimens were bluish-green from mossy inclusions. We found a few doubles, but no clusters. Some of the specimens we gathered were delicately tipped at both ends, although the majority bore only a single hexagonal prism termination.

In comparison, the limonite cubes we found have little to recommend them, but when considered as a separate form of nature's manifold handiwork, they are worth the extra eye strain to find them.

Confusing Quartet of the Plant World

By NATT N. DODGE
Sketches by Jeanne R. Janish

SOUTHWESTERNERS, in general, recognize most members of the cactus family, by touch if not by sight, but there is a confusing quartet of common and widely distributed desert plants which so closely resemble one another, at least superficially, that even long-time residents of the Southwest still fail to differentiate between them, particularly when encountered in unexpected places.

It is inaccurate to speak of these four as "quadruplets" because, although three of them are Lily Sisters, one of the group is only a first cousin, being the desert's principal representative of the Amaryllis Family. The three lilies are, respectively, Yucca (YUH-kuh), Nolina (no-LÉEN-ah) or Beargrass, and Dasylirion or Sotol (SOH-tole), with cousin Agave (ah-GAH-vee) or Century Plant the fourth member of the frustrating foursome.

Of the Lily Sisters, Yucca is by far the best known and most widely distributed. Native to North America and the West Indies, but found in greatest abundance in the arid Southwest and the tablelands of Mexico, the yucca

genus is represented by about 30 species.

There are two major groups of yuccas, the broadleaf and the narrowleaf. Both vary in size from the stemless soapweeds of the prairie states to the Giant Dagger (a broadleaf) of west Texas, and the grotesque Joshua Tree (a narrowleaf reaching a height of 30 feet and a trunk diameter of 24 inches) of the Mojave Desert where California, Nevada, Arizona, and Utah hold rendezvous.

Both types are widespread and often grow side by side, the broad-leaved Mojave Yucca and the narrow-leaved Joshua Tree probably being jointly responsible for the name Yucca Flat in Nevada which has suddenly become world famous as the site for the testing of Uncle Sam's atomic devices. The popular names, Giant Dagger and Spanish Bayonet, illustrate a point

Nolina, photographed by L. B. Dixon in the Joshua Tree National Monument.

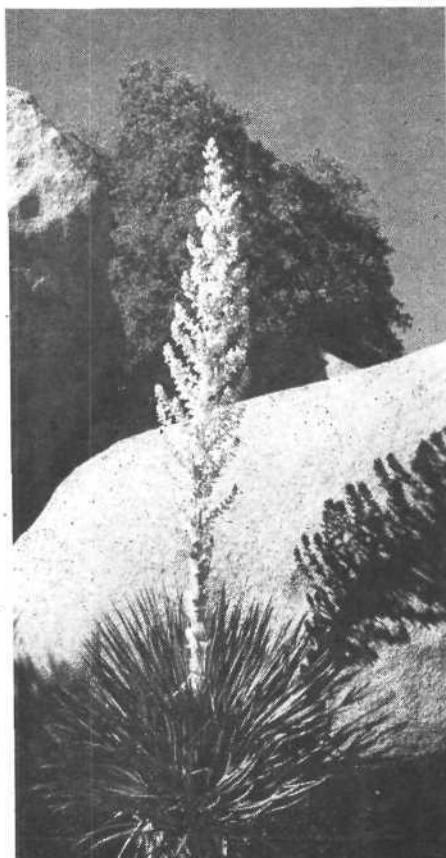
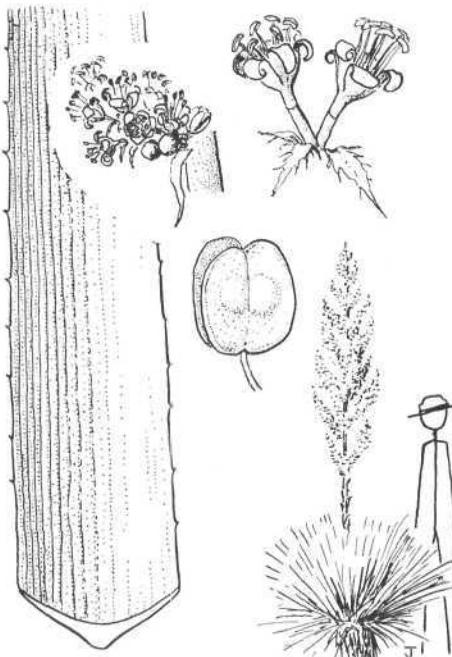
Some folks call them all cacti or cactuses (both plural forms may be used). But this is a mistake. Actually a majority of these blade-leaved plants with the tall flower stalks which are widely scattered over the desert country belong to the lily family. Natt Dodge, naturalist for the U.S. Park Service, has written this story to help Desert Magazine readers identify by their correct names the quartet—*Yucca*, *Nolina*, *Agave* and *Sotol*.

common to all yuccas, the fact that the leaves are stiff, erect, and sharp tipped. A person thrown from a horse into one of the big broadleaves conceivably could receive fatal injury.

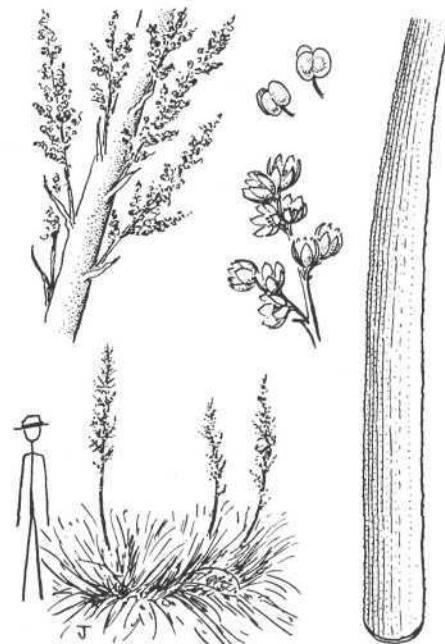
Nearly everyone who has traveled extensively through yucca country, either afoot or on horseback, has been painfully pricked and jabbed by contact with these bristling vegetable porcupines. The needle-sharp leaf tips are wood hard and sturdy enough to have been used as awls by prehistoric Indians.

To the cross-country tourist traversing the yucca belt, these prickly prairie proletariats, growing in stands dense enough in some places to be called forests, may appear to be worthless, although spectacular, weeds. But to the desert Indians, both prehistoric and modern, every part of the plant was useful. From the leaf fibers they made thread, cordage, basketry, fabric, even sandals. Roots of several species contain saponin from which the native obtains amoile or soap especially effective as a shampoo, and the basis of the name soapweed. Stems of the palmilla, an arboreal species, are used in Mexico for fence and wall building ma-

Nolina parryi



Nolina microcarpa



terials and, when split open, the soft interior provides food for livestock.

Fruits of the yucca are of two types, those of the broadleaf group being fleshy while the narrowleaf yuccas (the Joshua Tree is an exception) produce shell-like capsules filled with black seeds which the Indians grind to an edible meal. The fleshy fruits, both raw and cooked, are widely used as food by natives of the Southwest. Growing in clusters like huge dates, these fruits have given the name "datil" to the yuccas that produce them.

Flowers of the short-stemmed yuccas are browsed by livestock, and are boiled and eaten by the Mescalero Apaches of central New Mexico. Most species of the middle elevations bloom in late June or early July, but the massive, broadleaf, tree yuccas of southeastern New Mexico and western Texas open their huge panicles of creamy, bell-shaped flowers by mid-April. The Joshua, too, is addicted to early spring blossoming and may be in full flower by Easter. So, Easter lilies do sometimes grow on trees.

With all of its many uses, the yucca's most valuable commercial asset is its beauty. Several species adapt themselves readily to domestication and are widely used as ornamentals in landscape plantings in the eastern United States, England, and in southern Europe, particularly along the Mediterranean. New Mexico, appropriately, has adopted the yucca as its official State Flower, thus adding to its attractiveness as a tourist drawing card. One or more species is found, in suitable habitats, in almost every part of the Land of Enchantment.

Agave deserti



Dasyllirion, better known as Sotol, is one of Yucca's attractive sisters who gets plenty of attention in any assemblage of desert plants, although she doesn't travel as widely or exhibit the numerous specific variations affected by the more versatile yucca. Resembling, at first glance, a low-growing soapweed, the sotol has marked differences which become quite apparent on closer inspection. Leaves, which spread from a tight basal crown, are thin, ribbon-like and, although rigid, lack the sharp tip characteristic of the yuccas. Usually the tips are frayed and appear dry and withered. Instead of the ragged, threadlike fibers which protrude from yucca leaf margins, sharp, curved teeth which catch clothing or flesh and cling like fish hooks identify edges of sotol leaves. The

Agave — more commonly known as the century plant. It blossoms after 15 or 20 years, or longer, then dies.

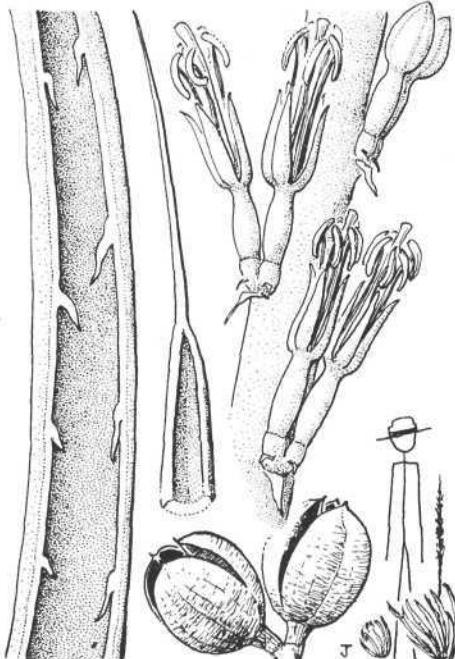


blossom stalk is tall and slender holding erect the somewhat cylindrical flower head composed of tiny blooms which vary in color from cream or tan to chocolate, and open from late May to early August.

Pima and Papago Indians used sotol leaves to weave a coarse matting. In harvesting and processing the fruit of the giant cactus or saguaro (sah-WAR-oh), these Arizona Indians separated the pulp from the juice, after boiling, by straining through fabric made of sotol leaves. In times of severe drought when ranges are barren, stockmen burn off the leaves, split open the spherical sotol heads, and feed them to their cattle. When peeled from the basal cluster, sotol leaf blades become the famous desert spoons which, when trimmed, polished, and varnished are sold as curios in cities and towns near the Mexican border. The practice of harvesting sotol plants for spoon production threatened, for a time, to despoil portions of the desert of this interesting plant and aroused organized protests among conservationists.

Perhaps the widest use of the sotol plant is for the illicit manufacture of a potent alcoholic beverage, also called sotol. Tasting somewhat like kerosene, the liquor will burn almost as readily, and stimulates hot tempers in those who consume it. Production of this fiery potion consists of harvesting and baking the basal crowns which are high in sugar content, spreading the pulpy mass on heavy wire mesh where the juice is tramped out by burros and collected in vats. After fermentation, the product is distilled and sold through bootleg channels among

Agave lechuguilla



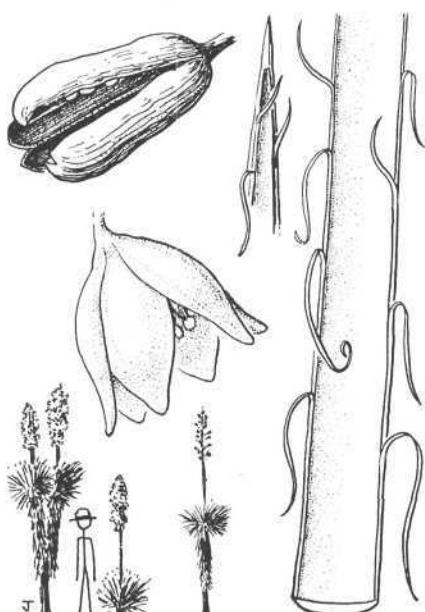


Yucca elata decorates the landscape in New Mexico where *Yucca* is the state flower.

the poorer classes on both sides of the border.

The third Lily sister, Nolina or beargrass, superficially resembles both yucca and sotol although the long,

Yucca elata



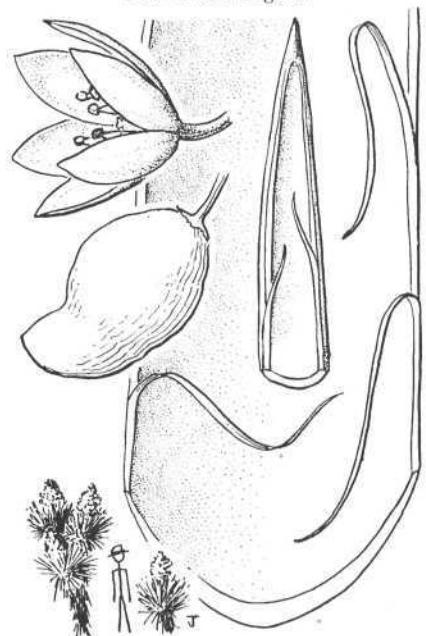
harsh leaves are much more flexible and grasslike, with margins smooth or minutely toothed. The tiny flowers, creamy to light brown in color and opening from May through July, are borne in open, drooping, plume-like heads. One species, *Nolina parryi* of eastern California and southeastern Nevada, produces erect, bushy heads of creamy white blossoms which, at a distance, may be easily mistaken for yucca blooms. The small, papery, dry-winged fruits often remain on the stalks until late autumn.

Leaves of the nolina, also known as basketgrass, were used by desert Indians in weaving fabrics, and the tender young bud stalks were roasted for food. When their normal food plants are scarce, livestock will browse the coarse nolina leaves.

Frequently mistaken for low-growing yuccas, certain of the century plants, or agaves, when not in bloom, do closely resemble their broad-leaved cousins of the Lily Family, because of similar growth habits. Other species differ so markedly from any of the yuccas that only persons wholly un-

familiar with Southwestern plants could possibly confuse them. When in bloom, the tall, usually robust agave flower stalks with yellow or orange to brownish blossoms with protruding

Yucca schidigera





Dasylirion leiophyllum, called Sotol

stamens are markedly unlike the flower heads and blossoms of any of the lilies.

Leaves of all of the agaves which are thick and succulent are arranged in a basal rosette, much more noticeable in some species than in others. Leaf tips are sturdy, sharp pointed, and can cause a severe and painful puncture. Margins of the leaves, in most species, are ridged with spines. The names century plant and mescal (mess-KAHL) are applied to the large species with huge, branching blossom panicles, and stems sometimes 25 feet tall. Some of the unbranched, smaller species are known as lechuguillas (lech-u-GHEE-ahs), one of which, *Agave lechuguilla*, is one of the commonest plants on the mesas and foothills of southeastern New Mexico, western Texas, and south into Mexico. In common with the yuccas, agaves are found over much of the Southwest

up to elevations of 7,000 feet, and vary vastly in size and appearance.

The name century plant stems from the fact that agaves require from eight to 20 or more years of growth to store sufficient plant food in their leaves to enable them to produce, in a few weeks, the huge flower stalk. The long growth period, to anyone awaiting the appearance of the bloom, seems like a century. As the plant finally reaches maturity, small plants known as offsets appear about the base of the mother and continue to grow after the parent has died, a certain fate once it has flowered and matured its seeds.

Early-day Indians harvested the basal stems with emerging flower stalks, roasting them among hot rocks in shallow pits in the earth. Mescal pits, as these depressions are called, may be found today widely scattered over portions of the Southwest where agaves

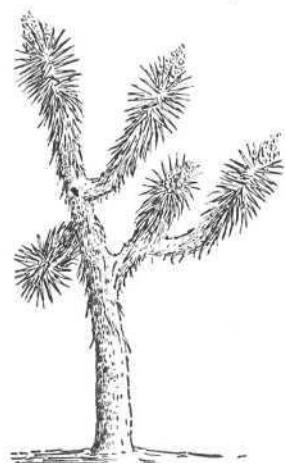
grow. The larger Mexican species are the source of intoxicating beverages made from the sap which flows from the base of the severed bud stalk. This juice, when fermented, is known as pulque (POOL-kay). When distilled commercially, the juice obtained from the mashed stems becomes the famous Mexican liquor, tequila (tee-KEE-lah). A fully mature plant gives evidence of blooming with the appearance of the bud in the center of the rosette of leaves.

Somewhat resembling a huge stalk of asparagus, the stem grows rapidly, increasing in height at the amazing rate of a foot, or even more, in a 24-hour period. Side branches appear, buds develop and open, usually during June or July (except some species including the lechuguilla which may blossom as early as April) to form the huge, spectacular, brilliant yellow to orange flower heads which attract humming birds and swarms of insects.

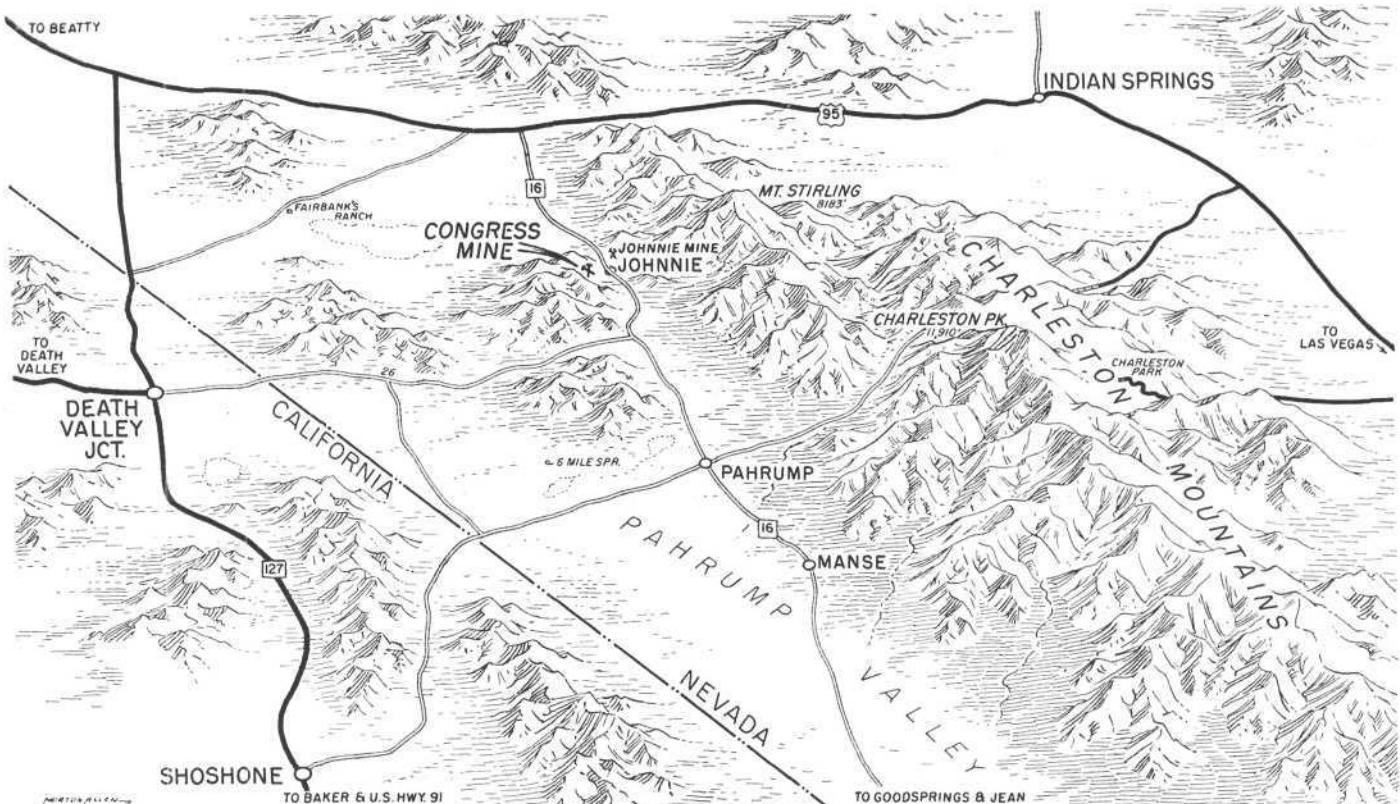
There is a certain amount of satisfaction in recognizing the commoner plants of the desert and in being able to call some of them by name with assurance of accuracy.

Only technical botanists are expected to be able to identify correctly all of the plants in any locality or plant community, but the ordinary Southwesterner with a little perseverance soon comes to recognize and class as friends the common plants he meets on his trips afield. There are many species of yuccas—many of agaves, and few people know them all by name.

With a little help, and by comparing photographs and sketches with the growing plants, almost everyone should be able to distinguish between the three attractive Lily Sisters and not confuse them with their beautiful cousin, Miss Agave of the desert Amaryllises.



Nolina, *Yucca*, *Agave* and *Sotol* are narrowleaf yuccas. Representative of the broadleaf yuccas is the grotesque Joshua tree of the Mojave Desert. Norton Allen sketch.



While the search for the Lost Breyfogle ledge generally was in the Funeral Range northwest of Death Valley Junction, the Congress mine is an easy two days' travel by foot from this locale.

Did They Find the Lost Breyfogle Mine?

Over a period of 90 years many men have searched, and some have lost their lives, in quest of a rich lode of gold said to have been discovered by Louis Jacob Breyfogle in 1862. Capt. James P. Helm, USN, retired, is one of those who believe the legendary mine has been found—and here is the evidence he offers to support that conclusion.

By JAMES P. HELM
Map by Norton Allen

NINETY YEARS have passed since Louis Jacob Breyfogle—or C. C. Breyfogle, for there is some disagreement as to the man's first name—stumbled into a Nevada ranch, delirious from fatigue, thirst and hunger, and exhibited specimens of ore richly threaded with gold.

Two generations of prospectors have grown gray in ceaseless search for the source of that gold—for the Lost Breyfogle is generally regarded as one of the most authentic of the legendary mines of the Southwest.

The quest goes on despite the fact that today there are responsible mining men who believe that the Breyfogle lode actually has been re-dis-

covered, and that in the last half century it has produced a fortune in gold.

But there is a difference of opinion as to which of two profitable Nevada mining camps was the original Breyfogle. One group of persons including such veteran mining men as the Grutt brothers, Gene and Leo, of Rawhide, Nevada (*Desert*, June '47), is convinced that the rich Round Mountain mine in Nevada which is said to have produced more than ten million dollars in gold bullion was the deposit first found by Breyfogle in the 1860s. Round Mountain is at least 150 miles north of the Death Valley region where the Breyfogle lode generally is thought to have been lost, and this disparity

in distance has caused a majority of the lost fortune hunters to discredit the idea.

Although 90 years of re-telling have produced many versions of the Breyfogle story, the general outline of the discovery and loss of the rich lode is as follows:

Louis Jacob Breyfogle, a prospector with some experience on the desert, was in Los Angeles in 1862 when word came that a rich silver strike had been made near Virginia City, Nevada.

With companions named O'Bannion and McLeod, Breyfogle immediately set out for the new silver camp. They took the most direct route to Nevada, going by way of San Bernardino and over the Cajon Pass across the Mojave desert toward the southern end of Death Valley. While they were camped at a point believed to be near the base of the Funeral Mountains they were attacked by Indians. It was a night attack. McLeod and O'Bannion were killed, but Breyfogle, minus part of his scalp-lock, escaped in the darkness

with only the clothes he wore and his shoes. He continued in a northeasterly direction over desert and mountain, finding water where he could and eating grass, roots and seeds.

Once when he saw green trees in an arroyo at the base of a hill, thinking it might mean water, he headed in that direction. There was no spring at the trees, but shortly after leaving there he noticed some reddish ore float that was threaded with gold. Nearby he found the ledge from which it came and although he was famished from lack of water and food, he broke off a few samples and put them in his pocket.

Several days later, dazed and staggering from weakness, he reached a settlement in Nevada and was nursed back to strength.

In the years that followed he organized prospecting expeditions to try to locate the gold ledge—but was never able to recall the landmarks well enough to identify the place. Generally, the search was carried on in the region of the Black and Funeral Mountains along the east side of Death Valley. When his companions on one of these expeditions accused him of misleading them, and turned back in disgust, he continued alone. It is said that Breyfogle's story was so convincing that George Hearst, father of the late William Randolph Hearst, grub-staked one of the expeditions. But Breyfogle died without re-locating his lost gold ledge.

More recently a group of San Francisco mining men have come to the conclusion that the Lost Breyfogle actually was the original location of what is now known as the Congress mine, at the western base of the Charleston Mountains. As far as terrain is concerned, this would be a much more plausible location than the Round Mountain district.

Ghost remains of the old gold camp named Johnnie. The Congress mine is a half mile away.



Outcropping vein at the old Congress or Chispa mine.

The story of the Congress mine is given in a preliminary report made by W. L. Frazer, mining engineer. He wrote:

"The history of the mine dates back to its original location as the Chispa mine in 1893, by George (Monty) Montgomery, who had outfitted a very complete and well directed prospecting expedition in search of the Lost Breyfogle lode. It was conceded at that time that this was the lost mine, from the identical characteristics of the rich gold ore of the Chispa mine, and that shown by Breyfogle in Austin, Nevada, back in the '60s. M. B. Bartlett later joined Montgomery in financing the project; hoisting and milling equipment was purchased, and hauled across Death Valley to the mine. The Congress shaft produced \$250,000.00 at that time from a small area of stoping; but as the confines of the rich ore shoot were reached, operations ceased."

Another quotation from a letter addressed to Henry J. Bartlett under the San Francisco date line of March 10, 1936, signed by J. O. Gillice, mining engineer, reads: "In response to your inquiry as to my impressions of the Congress mine located in Nye County, Nevada, I am pleased to state that definite opinions were formed and conclusions reached as to its merits, when first visited by the writer in the spring of 1907, and were again confirmed in 1918 when examined in company with Mr. Montgomery, its original locator. The history of the Congress mine designates it unquestionably as the Lost Breyfogle mine. This is attested by the old Indian Chief Panamint Tom, whom the writer had on the grounds, and who admittedly was one of the marauding gang who helped scalp the old prospector Breyfogle." According to Bartlett, Breyfogle was only partially scalped before making his escape into the darkness from the Indians who killed his companions, O'Bannon and McLeod.

The facts and evidence above stated seem sufficient to remove the Breyfogle lode from the list of lost mines. They can be verified by the present principal owner of the property, Henry J. Bartlett, Room 124, DeYoung Building, San Francisco, 4, who was about 10 years old when his father acquired an interest in this group of mining claims and all his adult life has been one of the principal owners. That the Breyfogle discovery was indeed a bonanza lode was fully substantiated by its subsequent history, the area becoming the most important "gold camp" in Nevada during the period 1894 to 1900. Annual gold production records in Nevada at this time were recorded by counties only, and not stated separately by properties. The production reported from Nye County during



this period came almost entirely from the Chispa and Johnnie mines.

The fissure vein on which the Breyfogle outcrop was a prominent feature, extends for a considerable distance on the surface, having a strike about ten degrees east of north. Following the shut-down of the Chispa mine about 1899, after producing approximately \$250,000 in gold at the old price, extensive prospecting of the vein northward by a group from Utah resulted in the development of a number of claims about four miles from the Chispa, known later as the Johnnie mine.

In 1903, members of this group of operators leased the neighboring Chispa mine. A new shaft now known as the Mormon shaft, was sunk to a depth of 175 feet about 430 feet north of the original opening on the Chispa ground. An estimated \$100,000 in gold was taken out of three small stopes during the following ten months, until work was stopped by cancellation of the lease. Shortly thereafter the Chispa mill and camp were destroyed by fire caused by parties unknown. As a consequence, considerable ill feeling developed between the owners of the Chispa mine and the Johnnie group.

Later, certain individuals led by Phil Foote, a notorious bad-man from Utah, attempted to jump the Chispa claims during the absence of the operators on a visit to the town of Pahrump, 20 miles to the south, for supplies and recreation. Upon learning of this development, Harry Ramsey, one of the Chispa owners and leader of the group, returned with his associates to the property. Armed with rifles, they secretly approached the camp from the high-ground side and called on the surprised intruders to leave the property.

"Come get us," yelled Phil Foote, following up his challenge with a rifle shot. Ramsey, a crack shot, and his companions answered shot for shot in the ensuing gun-battle. Foote carelessly exposed himself from behind a protecting ledge and received a rifle bullet through his body which severed a vital artery. Jack Longstreet, a squaw-man who had stopped for a visit at the camp at the time, hoisted his squaw's shawl tied to the end of his rifle as a token of surrender. He was told to lay aside all arms and direct all present to come out in the open with hands up. Foote, though mortally wounded, kept up a volley of oaths against his captors as long as his strength lasted while being transported to the town of Johnnie, less than a mile distant. Ramsey had removed the door from the assay-house for use as

an emergency litter. Foote died from internal hemorrhage and loss of blood before reaching medical aid and was buried the same day in the cemetery at Pahrump. Ramsey was arrested and tried for the killing but was acquitted on grounds of self-defense.

The Chispa mine, only partially developed, has been dormant since 1905 when ownership was transferred to the newly organized Congress Mining Company and its name changed to Congress mine. The elder Bartlett, prior to his death in 1923 at the age of 90, had gradually acquired most of the outstanding interests in the company and resolved to hold the property for his sons, George and Henry. It remains a "sleeping" property awaiting the time when conditions become favorable for renewal of gold mining in the United States. Then the ghost townsite of Johnnie, once a busy mining camp of about 700 population, may again become a gold producing center.

CONTESTS, WHISKERENO AT RANDSBURG CELEBRATION

The mining communities of Red Mountain, Randsburg, Johannesburg and Atolia plan a Labor Day celebration which, in true mining camp tradition, will last three days instead of just one. Included in the Old Time Mining Celebration scheduled September 5-7 in Randsburg, will be a whisker contest, burro flapjack contest, hard rock miners' drilling competition and gold panning event.

A Hermit's Convention, planned by Desert Rat Harry Oliver, publisher of the *Desert Rat Scrapbook*, is also to be held, with the whisker contest as its main event. Judges will be famous Hollywood beauty experts.

"Buffalo Bill" Maxwell is making plans for the rock drilling and gold panning events. Other departments are being handled by Paul Hubbard, Randsburg and Ridgecrest publisher. —*San Bernardino Sun-Telegram*.

TRUE OR FALSE

The Great American Desert is a big world with many interesting facets for those who travel and read.

This test is a cross-section of the more common knowledge of desert life and lore. It includes history, geography, plant and wildlife, crafts and the lore of the desert country. A score of 12 to 14 is fair, 15 to 17 good, 18 or better is exceptional. The answers are on page 21.

- 1—The Gila Monster is the only poisonous lizard on the Great American desert. True _____. False _____.
- 2—The Mojave Indian reservation is along the Mojave River in California. True _____. False _____.
- 3—Pearls are mined in Nevada. True _____. False _____.
- 4—Rainbow trout may be caught in the Colorado River. True _____. False _____.
- 5—Yuma and Tucson in Arizona are on the same U. S. highway. True _____. False _____.
- 6—The floor of Death Valley may be seen from the top of the Panamint Mountains. True _____. False _____.
- 7—Pauline Weaver was the wife of a famous western scout. True _____. False _____.
- 8—Desert encelia is also known as Incense Bush. True _____. False _____.
- 9—Agency headquarters for the Navajo tribe are at Window Rock, Arizona. True _____. False _____.
- 10—Juan Bautista de Anza camped at Palm Springs during his historic trek from Tubac to Monterey as leader of California's first white colonists. True _____. False _____.
- 11—Elephant Butte dam is in the Rio Grande. True _____. False _____.
- 12—Iceberg Canyon forms part of the shoreline of Lake Mead. True _____. False _____.
- 13—Hematite is a form of copper ore. True _____. False _____.
- 14—Lew Wallace, author of *Ben Hur*, was once governor of New Mexico. True _____. False _____.
- 15—The Wasatch Mountains may be seen from El Paso, Texas. True _____. False _____.
- 16—The padre, Marcos de Niza, was associated with Coronado's quest for the fabled Seven Cities of Cibola. True _____. False _____.
- 17—Reno is the capital of Nevada. True _____. False _____.
- 18—Silversmithing among the Navajos is done mostly by the women. True _____. False _____.
- 19—Automobiles may be driven to the base of Utah's famous Rainbow Natural Bridge. True _____. False _____.
- 20—The Wupatki National Monument is in New Mexico. True _____. False _____.

LIFE ON THE DESERT

By INA M. WELLS

RODOLFO appeared suddenly in our patio one morning in early spring, a dark little man with many days' growth of beard making him seem even swarthier, wearing soiled and rumpled clothing that didn't fit. Somewhere between our place and the border he had acquired a coat many sizes too large for him, its baggy pockets hitting his knees as he walked. It may have been coincidence that he showed up the same day our neighborhood boy Pablo was working for us. And then again, it may not.

"*Pablo, vamos aqui!*" I called in my own special brand of pigeon Spanish that Pablo understood only when he wanted to. Pablo came into the patio, glanced at the stranger, then turned to me for instructions.

I indicated the newcomer and shook my head. But Pablo had other ideas. He nodded positively. I wavered. Then I saw the man's soft, spaniel-like eyes fixed on mine. Usually a line-jumper keeps his eyes averted or stares beyond into space.

"*Como se llama?*" I asked politely. And when he replied, "*Rodolfo, a sus ordenes*" in a voice so soft that mine was sandpaper by comparison, I knew I was beaten. I went to prepare his breakfast.

From that point on Pablo took him in hand, showing him where the wash basin was kept in the laundry trays, urging him to slick back his hair. He brought him to the kitchen door for his breakfast tray and stood by the patio table while he ate, coaching him. He was not to eat everything in sight; there would be more at the next meal, and the next. He was to remember his manners and say thank you when he returned the empty tray to the kitchen door. I heard Rodolfo practicing the words between mouthfuls, "Thenk-kew, thenk-kew."

Pablo came with him to the door to make sure he remembered, and grunted in disgust when Rodolfo bowed and said, "*Muchas gracias, senora!*"

Soon the rock-laden wheelbarrow was trundling past my window at regular intervals. But it was always Rodolfo who was doing the trundling. The little man had peeled off his big coat when the sun broke through the overcast, and his shirt was dark with perspiration. The tendons in his neck tightened at the struggle to push the heavy load over the uneven ground.

Just a wetback Mexican—but Rodolfo was loyal and honest and industrious, and he loved his wife and four *ninos* back in Mexico. Some day he would go back to them a rich man.

Pablo had never worked like this! And where was Pablo?

Pablo, I discovered, was standing at the excavation, an immobile, kingly figure, a Montezuma incarnate, his pick-ax resting as lightly in his hands as a scepter. There was no ring of steel on stone until Rodolfo returned with the wheelbarrow. Then the pick exchanged hands and rocks and dirt began to fly.

It was apparent, now, that I had one garden worker and one boss. But Pablo, in his strict honesty, was going to see to it that I got the work of two men for which I would be paying. Both of them were Rodolfo.

Pablo left our neighborhood soon after, heading north for steadier and better paying work. His little cabin, far below us in the valley, was dark at night, showing that no one had come to take his place. We'd hoped he would have finished the dry wall before he left, so that it would be all of a piece. Pablo could not abide the idea of a completely dry wall, and had taken *barro* from the vein he discovered in his excavating and making it into a wed mud had chinked the rocks with it. How it would proceed from there, with some other individualist working on it, was anybody's guess.

When Pablo's day to work rolled around, there was Rodolfo, waiting in the patio. He had inherited some of Pablo's cast off clothes and took it for granted that he would inherit his jobs as well—which was definitely all right with us!

Now that he was to be our "boy" we felt more responsibility for him. I looked at his shaggy face and thought of the electric razor that had never won popularity with my husband. Its whirring had sounded for the first few days after Christmas; then silence returned to the time of shaving, and I knew my husband had gone back to the old, old safety he had used since high school graduation. Now the electric could really prove its worth—on Rodolfo's generous beard.

If there was anything that delighted Rodolfo, it was electrical gadgets. If I hadn't stopped him in time, I think his whole head would have gone under the razor and he would have emerged as hairless as a chihuahua. The shave did reveal his fine, delicate features, cut with cameo-like perfection. As I laid out his work for the day, I hoped

no one from Hollywood would be scouting our hills. Hadn't Pablo trained Rodolfo to be the best worker we had ever had?

We never found out where he spent the nights—or the days when he wasn't working for us. Before the transporting law went into effect, we used to drive him down into the valley at evening, to a point near the center of the olive grove, where he always asked to be let out. And always before the car had been turned around he had melted into the landscape so that not even the tip of his bobbing sombrero was seen to move in the gray light of the olive trees.

One day he brought me a letter he had written to his *esposa*. We learned, then, for the first time, of the wife and the four *ninos*. He wanted to send them a "checkie"—it had been two months since he had left home, and they would need money. Would we address the letter for him and put the proper stamp on it? The international money order was inside, he said.

Now that at last we knew about Josefina and the *ninos*, Rodolfo was suddenly changed into a man of many words. They were flung about in soft, rapid-fire Spanish; by dint of listening with our imagination rather than our intelligence, we were able to piece together something of his home life, his eagerness to get many dollars for his family, to become a man of importance in his home town. Perhaps he also told us that day that he was "going north"—if so, we did not understand. Anyway, that was the last we saw of him for some time.

It was nearly two months later when we looked out into the patio one Sunday noon and saw Rodolfo there, quietly waiting, as always, for some signs of life. He was so changed we scarcely knew him—a well-fitting suit, smartly black, a good felt hat rakishly tilted over one eye, a trim haircut that left sideburns well down in front of his ears and a pencil-line mustache made us wonder if that Hollywood scout had found him after all.

But for all his fine clothes, Rodolfo was a worried man. After the usual "*como esta usted*" had been exchanged on all sides, he explained that he had been at some *rancho grande* working for many more dollars than he could get in our rocky foothills. He was

now a rich man, "muy rico," and we contemplated the sadly harrassed state that much riches could bring to a man.

Then he showed us the letter. There, staring up at me was the grimy, much-handled letter that had been so fresh when I addressed it for him. It was marked "unclaimed" and signed with a Spanish name.

"It is the name of my wife's sister," he explained. "It wasn't opened. She did not know there was a 'checkie' inside."

To our practical minds that still didn't explain why the letter was returned. It was a dreadful thing to be incommunicado with one's nearest and dearest just because of the inexplicable whim of a third party. All at once we shared his deep sense of frustration and concern.

"Now," he said, in slow, careful Spanish to be sure we understood, "now I am a rich man. I shall not bother with the slow mails. I shall telephone to Mexico on your phone."

Realizing it might be something of a surprise even to a "rich" man to learn the cost of a long-distance call to southern Mexico, we hesitated. Speculating rapidly I figured that his riches could scarcely amount to more than three hundred dollars American. Translated into pesos and the pesos in turn translated into buying-power in a pueblo, he might indeed be a rich man—in his home town. It was a pity to start squandering his wealth on long distance calls. Nevertheless, under the circumstances, we would have done the same thing.

"Does the *esposa* have a phone?" we asked.

"No, but the cousin has an *officina* in Justlaluaca. The cousin will know if all is well with Josefina and the little ones."

Suddenly we felt the same forebodings as Rodolfo. So many things could have happened in the four months since he had left home. Disaster, death. Or Josefina, tired of being so long alone, might have found another to share her home and the four little ninos, a man with less of a yen to travel and able to provide more comfort in the *casa*. A man might lose his whole family at one stroke.

The clock reminded us it was time to leave for our dinner date with friends. By hurrying we possibly could spare half an hour for the call. Quickly we relayed the information Rodolfo gave us to the long-distance operator.

"I'm sorry, there is no city of that name listed in Mexico." The announcement startled me. I told Rodolfo, standing anxiously by my side,

"Si, si—*un ciudad muy grande*," he insisted. He wrote Justlaluaca on a

slip of paper, and I spelled it for the operator.

"I'm sorry, we have no city by that name listed," she repeated after a pause.

We asked for a Spanish speaking operator, and Rodolfo pleaded with her directly—with the same results. No city name Justlaluaca. The Tijuana operator, called in conference, confirmed the bad news. Rodolfo insisted in great detail that it was a large city "with an airport and many pueblos clustered around its outskirts — his cousin had an office there—a city as large as San Diego where planes came and went many times a day."

We watched the clock with growing concern and began to wonder if the months Rodolfo had been away could have caused the old home town to loom larger and more important than it really was. First the unclaimed letter, now the unclaimed town. Had Rodolfo dreamed up all this, to comfort him through the lonely hours? Was there no Josefina, no *ninos*, no cousin with an *officina*, no Justlaluaca?

Spanish flowed on and on as Rodolfo pronounced, spelled, implored. Finally, he, too, was worn out. He cradled the phone, baffled but not beaten.

"I go to Tijuana," he told us. "From there I will send money by the *telegrafo*."

We took a long chance on being caught "transporting" and drove him to the nearest bus line, thinking it would be the last we would ever see of him. Once he got on Mexican soil, how could he resist going on home?

Next morning, there was Rodolfo in the patio, dressed for work. He was a happy man, beaming and voluble. At the telegraph office was one who knew Justlaluaca. So the money was sent and received by his cousin who would deliver it to Josefina. Now he was a free man, no longer weighted down with money and worries.

He would work for us one day—"it is not good to see the grasses so high they hide the *casa*!"—one day only. Now he no longer worked for so few dollars, but for us, yes—one day. Then he would go back north, to earn more money so that he might ride home in an *aeroplano*, as befits a man of wealth.

A great curiosity seized us — we wanted to know where Justlaluaca really is. We took the atlas to the patio, turned to the map of Mexico and asked Rodolfo to show us Justlaluaca.

He pushed his breakfast tray aside and studied the map long and earnestly. His blunt forefinger traced a road south from Mexico City. He

muttered names over happily as his finger reached them one by one. At last the pointing finger stopped. "*Aquí!*" he cried, excitedly. We looked. Telixitlaluaca. Yes, that was it, he assured us.

One mystery was solved. A city with a nickname, probably. Did the telegraph operator know the nickname, or did Rodolfo point it out to him on the map? It could happen in San Diego, for instance. Any sailor three sheets to the wind or less could insist just as volubly that there was too a city named Dago. Didn't he ship from there?

It was a hard day's work, making the place look civilized again after two months' neglect. But Rodolfo was a happy man and to him the job was easy. By sundown he had made us look quite respectable again. He waited by the car for his last ride down into the valley, and his eyes were wistful as he looked over the wide-stretching view. The valley far below, with its miniature ranches and toy village, the mountains to the east, their peaks rising in tiers. He turned to the west where the sun had emerged from the fog bank to spatter gold-dust over the water, softening the stern head of Point Loma and laying the Dying Padre to rest on a golden catafalque. He murmured that he would be *muy contento* to remain here and work just for us—but a rich man has many responsibilities, he cannot do as he pleases.

We drove Rodolfo down into the valley. At the olive grove he said *adios*, and before we turned the car around he had melted into the gray shadows.

TRUE OR FALSE ANSWERS

Questions are on page 19

- 1—True.
- 2—False. The Mojave reservation is along the Colorado River.
- 3—False. Pearls come from oysters, not mines.
- 4—True—below Hoover dam.
- 5—True—U. S. Highway 80.
- 6—True.
- 7—False. Pauline Weaver was a man.
- 8—True. 9—True.
- 10—False. De Anza crossed the Sierra many miles south of Agua Caliente Springs—now Palm Springs.
- 11—True. 12—True.
- 13—False. Hematite is an iron ore.
- 14—True.
- 15—False. Wasatch Mountains are in Utah.
- 16—True.
- 17—False. Carson City is the capital of Nevada.
- 18—False. Navajo men do the silver-smithing.
- 19—False. The nearest highway is 14 miles from Rainbow Natural Bridge.
- 20—False. Wupatki is in Arizona.

LETTERS

A Rattlesnake's Buttons . . .

Tecate, California
Desert:

Frequently your readers ask: "How often does a rattlesnake add a new button to his rattle?"

Roger Conant, curator of reptiles, Philadelphia Zoological Gardens, answers this question in his article, "Tall Tales" in the June issue of *Science Digest*. Conant says three to seven new segments are added each season, with three or four as an average.

Another "old wives' tale" refuted in the article is the yarn about rattlesnakes swallowing their young. This story is so widespread that it is hard to contradict, yet no real evidence has ever been presented to indicate that it actually takes place.

LEO TURNER

• • •
Field Trips on the Desert . . .

Twenty-nine Palms, California
Desert:

One of your writers in a recent issue of *Desert Magazine* was rather critical of some of the field trips for rockhounds which have appeared in previous issues of your publication.

Since I have written most of the field trip stories in *Desert* during the last seven years I would like to take issue with the writer insofar as my own stories are concerned. I would challenge anyone to name a single one of my trips which did not produce for collectors—at the time it was published—exactly the material which I described. Many of them have produced sacks and sacks, and most of them are still producing gem cutting material—though in some cases now it is necessary to perspire a little to get it.

At the National and California convention and show held in San Diego in July, scores of people looked me up to thank me for writing these trips for *Desert*. A number of them had just purchased back copies and are now following trips written up seven years ago, and finding material. I myself have checked on several of them recently and have picked up, with little effort, material as good as much of that sold by dealers.

It is my opinion that *Desert Magazine* and its field trips have done more to develop the rockhound hobby today in western United States than all other mineral magazines in the United States combined. There is scarcely a cutter or collector in this area who has not followed *Desert Magazine* field

trips to his advantage—or who has not bought material from dealers who have followed these trips to their advantage. The blue-ribbon and prize-winning cases in the San Diego show bear evidence of that.

My own first rock trip was made following one of John Hilton's mapped trips—an area which I would never have known otherwise—and I still prize material I found on it, and it was still producing at the time, less than a year ago, when the navy closed it off. That, if I remember correctly, was nearly a dozen years after it was written.

It is not an easy thing to locate, photograph and map rock and gem fields which will satisfy even a large percentage of the thousands of collectors who eventually will visit them. I am proud of the fact that in most of my field trips I have been able to do that.

HAROLD O. WEIGHT

Dear Harold: I regret that there has appeared in *Desert Magazine* any criticism of the character and quantity of gem material in field trips that have been logged for *Desert* readers. As far as I can recall no letter of complaint has ever been received regarding your field trips. It is also true that the attitude of *Desert's* editorial staff has always been that the physical and spiritual values which accrue from a day spent roaming the desert in quest of gem material is of no less importance than the stones acquired. And that no field trip is a total loss, regardless of the gems brought home.

—R.H.

• • •
Big Bend Fan . . .

Arvada, Colorado
Desert:

As a longtime Big Bend enthusiast, I looked forward to Randall Henderson's article in the July issue. And I wasn't disappointed.

I "discovered" the Big Bend in 1939 when I went there with members of the Border Patrol to write a story on the region—and I have been enthralled with the country ever since.

The one thing I found missing in *Desert's* story was the saga of Candelario Vasa, the "Robin Hood of the Big Bend." He was very much in evidence when I was there, and I spent nights stalking him, rifle in hand, revolver at belt. He ranged far and wide, headquartered in Mexico, crossing the border for frequent raids, then escaping—always escaping—back into Mexico. True to his nickname, he always divided his loot with the poor.

He was the terror of the border. We longed, those Border Patrol mem-

bers and I, to get him in our sights just once.

Two years ago when I was in Mexico I learned the fate of Candelario Vasa. He was shot by a group of Rurales who caught him red-handed at his thievery. And only at his death was a startling fact revealed about this notorious and widely feared outlaw—he was a doddering, feeble old man 87 years old!

CHARLES B. ROTH

• • •
Horned Lizards Safe . . .

San Bernardino, California
Desert:

In your June issue a reader wrote protesting the swapping of desert wildlife at the Third National Jamboree of the Boy Scouts of America scheduled for Irvine Ranch July 17 to 23.

The Executive Board of Arrowhead Area Council has adopted a policy prohibiting Scouts and Explorers from bringing wildlife to the Jamboree. It is certainly not the policy of the Boy Scouts of America to remove wildlife from its natural habitat.

Since it serves the entire desert area of San Bernardino County, which constitutes the largest desert area of any Boy Scout council in California, the action of the Arrowhead Area Council is significant.

EDWARD H. SAXTON
Scout Executive

• • •
The Mining of Sulphur . . .

Hollywood, California
Desert:

Referring to a report on page 35 of your June issue, I wish to point out that water does not dissolve sulphur. Sulphur is practically insoluble in hot or cold water. The molten sulphur is forced up through the inner of two concentric metal pipes. The space between the inner and outer pipe conveys superheated water under pressure down the well. This fuses the sulphur which flows upward rather like water from an artesian well and solidifies on cooling.

This process was perfected in Louisiana by Herman Frasch for the Union Sulphur Company and later adopted by the Freeport Sulphur Company in Texas.

W. A. BUSH

• • •
Another Beercan Hater . . .

Paso Robles, California
Desert:

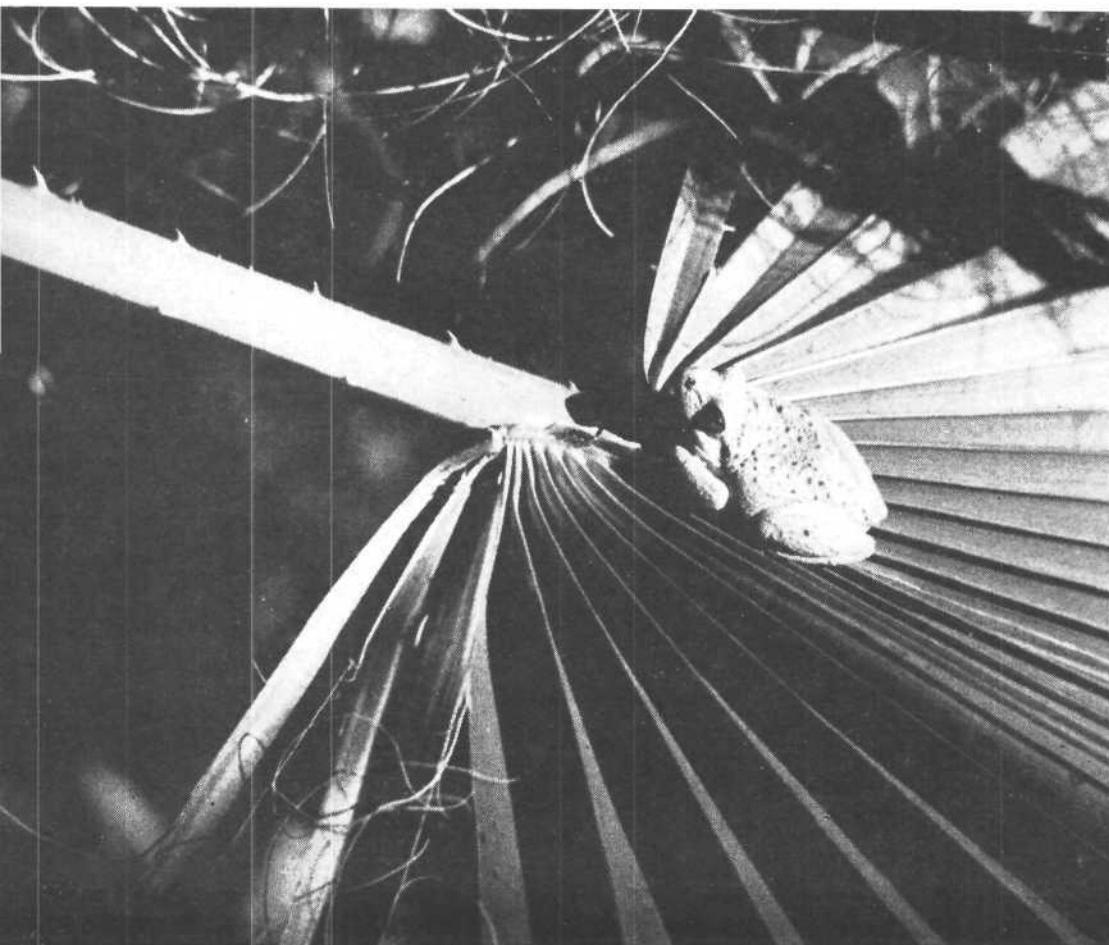
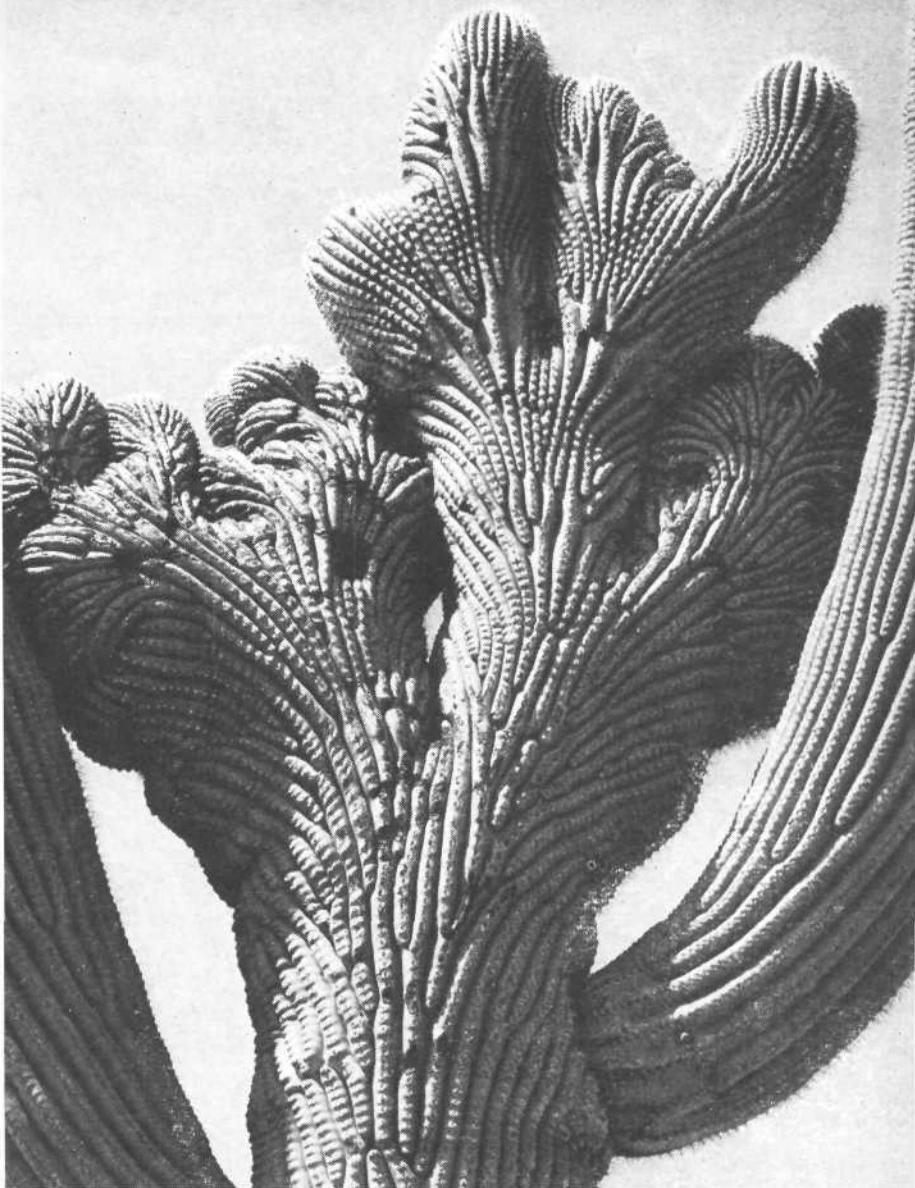
I also have a grudge against the litterbugs. This summer, on a motor trip to Coachella Valley, I suddenly came upon three beercans some litterbug had tossed onto the highway. I missed two of them, but the third one blew an almost-new tire.

ALEC WESTMORE

PICTURES OF THE MONTH . . .

Crested Cactus . . .

Gnarled and grotesque, this giant saguaro cactus stands on the desert on Tanque Verde Road about five miles east of Tucson, Arizona. The picture, first prize winner in Desert Magazine's July photo contest, was taken by Bill McLemore of Phoenix. He used a Graphic View II camera with a 13-inch f. 6.8 Goerz Dagor lens, K2 filter, 1/10 second at f. 45.



Tree Frog . . .

Nell Murbarger of Costa Mesa, California, discovered this tree frog basking in the sun in Murray Canyon, near Palm Springs, California. Second prize photo in the July contest, it was taken with an Argoflex Model E camera, Plus X film, 1/10 second at f. 18.

Hard Rock Shorty OF DEATH VALLEY



"Well anyhow," commented Hard Rock Shorty, "that alum spring up in Fried Egg crick'll outdraw anything I ever seen, right down to an' includin' them birdseed poultices my maw usta plaster on me."

Hard Rock tipped back in his chair on the lean-to porch in front of the Inferno store and produced an ancient, well-caked fumigator that once-upon-a-time was a pipe. Now it was just something that looked like a pipe and smelled worse than fertilizer. He stuffed it full of ground hay that he kept loose in his pocket, and how he lit it without getting his whiskers singed is a mystery.

"Why, lemme tell you about what happened to Pisgah Bill's mule over in the Panamints last year. He got bit in the leg by

a sidewinder—the horse, not Bill—an the durn leg swole up 'til it looked like an over-size ham. Wouldn't go down, neither. So Bill an' the mule limped up the canyon to that alum spring so that poisoned leg could be soaked in that alum water. The leg began shrinkin' right away, but Bill didn't know when to quit and first thing he knowed that leg'd shrunk down shorter'n the other legs. Bill had quite a time tryin' to get them legs all the same length. First he'd splash water on one of 'em an' then the other. Never did git 'em jest right, an' that mule ain't got much more legs left than one o' them German weenie dogs, an' still limps a bit on odd corders—but Bill did git rid o' that swellin'."

How to Avoid, Treat Snakebite

"If you go into a new part of the country to work or camp, get advance information about snakes of that area," warns a bulletin of the U. S. Forest Service. "If it is poison snake infested country, protect your legs with high boots or loose trousers and take a snake-bite kit along.

"In climbing over ledges, look first. Don't put your hand on a snake. Don't reach into rabbit holes, thick foliage or any place where you can't see clearly. If you form the habit of watching your path and where you reach, you should easily avoid trouble with a poisonous snake."

When a poisonous snake strikes, he injects venom through two sharp, hollow fangs. The fangs and venom go into the flesh about a quarter of an inch. Immediately there is intense, burning pain. The flesh around the two fang marks swells and become discolored. The victim must have first aid treatment at once, and antivenom as soon as possible.

"In administering first aid for a snake bite," continues the bulletin, "tie a bandage firmly around the limb above the fang marks. Use a necktie, soft belt, shoe lace or a large handkerchief for a bandage. Make a knot that can untie easily, but tie it firmly enough to press into the flesh. Its purpose is to dam off the poison so it can't travel

up the limb and get into the body. However, don't have it tight enough to stop the flow of blood. If the hand or foot gets cold and numb, the bandage is too tight. Loosen it a little.

"Cut once through each fang mark. Make the cuts one-half inch long and a quarter-inch deep. Cut lengthwise of the limb so you won't sever large blood vessels or tendons. They are near the surface at the ankle and wrist. If the bite is in the fat part of the limb you will be safe in making two cuts across each fang wound in the form of an X. If you haven't a scalpel from a snake-bite kit use a knife or razor blade. The cuts should bleed. The blood and venom should ooze out. If it comes in spurts, tie the bandage a little tighter. Watch out that you don't get any blood or venom into cuts in your own hand.

"The next step is the suction treatment. It takes at least half an hour, so urge the injured person to be as quiet as possible, as movement spreads the poison. Next, draw the venom out of the cuts by suction, using the suction pump from your kit. If you have no kit, suck out the blood and venom with your mouth and spit it out. You will be in no danger from the poison unless you get it in open cuts or sores in your mouth or lips. Continue the suction treatment for half

Close-Ups

The clues to the Lost Breyfogle Mine published in this issue of *Desert Magazine* were written by a retired naval officer. Captain James P. Helm, Supply Corps, U. S. Navy, Ret., entered the Navy with an ensign's commission July 10, 1906, and until his retirement six years ago, served 16 years' sea duty and 20 years ashore.

Captain Helm was born in Hamblen County, Tennessee, in 1884. His father was a country doctor, as were his great-uncle and great-grandfather before. Until 1931, Helms had answered the medical needs of Hamblen County for more than 100 years.

After 30 years' service, Captain Helm retired to civil life in 1936, and he and his wife built a home in Van Nuys, California. Here the captain became interested in mineralogy and prospecting and took up these two outdoor activities as hobbies. He was recalled to active duty after Pearl Harbor and released to retired status with the rank of captain in 1947. He and his wife now make their home in San Francisco.

• • •
Jeanne Janish, who illustrated Nat Dodge's story, "Confusing Quartet" for this issue of *Desert Magazine*, has been drawing flowers ever since she was a little girl. For the past 27 years she has fitted scientific illustration in with homemaking duties and has illustrated 14 books, most of them college textbooks or scientific monographs on geology, embryology, biology and, to the largest extent, botany.

Her husband, Carl Janish, is in the construction business, presently as chief inspector of construction at the Kaiser Steel Company mine and camp at Eagle Mountain, California. His work takes him about the country, and both Janishes like the traveling and the frequent changes of address this involves.

an hour, but stop halfway through and take the bandage off. Leave it off for a minute, then tie it on again. If the swelling has moved up the limb, tie the bandage higher. Always keep it above the swelling. Don't forget to remove it for a minute every 15 minutes.

"Get the victim to a doctor or hospital as quickly as possible for antivenom. Get him there with as little effort on his part as possible, because brisk movement speeds up circulation and spreads the venom. If he must walk, see that he walks slowly."

MINES and MINING

Tombstone, Arizona . . .

Unwatering operations have started at Westside shaft of Tombstone Development Co., and new equipment is being installed. "The Hill," as the property is generally referred to, was closed down over a decade ago, and two fires have since destroyed two timbered shafts. The present company is comprised of a new group of owners.—*Humboldt Star*.

Flagstaff, Arizona . . .

Manganese, a steel-hardening metal considered so essential to defense that the government is purchasing and stockpiling the country's entire output, is being produced at the rate of two carloads of concentrates a week by the Bosley and Stovall Manganese Company from its property in Long Valley. A stripping or open pit operation is used to obtain the ore, employing power excavators and loaders. The ore is processed at the firm's mill at Mormon Lake, 30 miles from the mine site.—*Coconino Sun*.

Yerington, Nevada . . .

Anaconda Copper Company's metallurgical plant in its multi-million-dollar Yerington development is scheduled to begin operation in October. Soon after, full production is expected to be reached, and the company will be sending about five million pounds of copper precipitates monthly to its smelters in Montana. The property is estimated to contain more than 35 million tons of one percent copper oxide ore.—*Humboldt Star*.

Vernal, Utah . . .

Freight problems of Unitah Basin miners may be solved if sufficient ore deposits are found. Sheldon Wimpfen, Atomic Energy Commission official at Grand Junction, Colorado, encourages further exploration, announcing that if enough discoveries are made the AEC will construct a mill in the area to handle ores. Uranium is being found in the basin in shale, sandstone and bentonite.—*Vernal Express*.

Beaver, Utah . . .

Blue-Star Mining Company was organized recently to operate tungsten property 10 miles west of Beaver. The company has a three-year agreement with the government which will purchase all the concentrate it can mill. Tests have shown it will be possible to obtain 60 percent ore through the ball mill the firm is installing on the site.—*Caliente Herald*.

Tonopah, Nevada . . .

The mining history of Tonopah is the subject of a bulletin just published by the Nevada Bureau of Mines. The report, by Mrs. Byrd Fanita Wall Sawyer, Russell R. Elliott and Jay A. Carpenter, reviews the activities of the various Tonopah companies during each period of mining development and describes the town life and government of the early days. The bulletin, Number 51, may be obtained from the Nevada Bureau of Mines, Reno, Nevada, at a cost of \$1.00 plus 10 cents postage.—*Battle Mountain Scout*.

Globe, Arizona . . .

A long-range prospecting and exploration program is being carried out by Kennecott Copper company through its subsidiary, Bear Creek Mining Company. No mineralized outcrops have been reported found on Bear Creek property, but predictions of favorable mineralization have been based on geological assumptions. The property is located east of San Manuel Copper Company's porphyry copper deposit.—*Mining Record*.

Moab, Utah . . .

Charlie Steen, the millionaire uranium miner from Moab, reported in July that he had turned down an offer of \$5,000,000 for his uranium properties in Big Indian Canyon, San Juan County. Steen refused to identify the persons making the offer.—*Salt Lake Tribune*.

Henderson, Nevada . . .

At the urging of the Air Force, Titanium Metals Corporation has received approval of a \$10,000,000 loan from the federal government for its Henderson plant, according to Defense Secretary Charles Wilson. Titanium is a substitute for columbium, as a hardening agent in alloys. The metal's greatest value to the airplane industry is its ability to withstand the terrific heat of jet engines. The core of the blast often reaches 3700 degrees, which would burn ordinary steel. —*Pioche Record*.

Brawley, California . . .

Four claims have been staked out by three Brawley prospectors in the mountains north of Niland, and early evidence indicates the sites cover a good deposit of commercial grade uranium ore. Specimens have been sent to the Atomic Energy Commission for testing.—*Humboldt Star*.

Henderson, Nevada . . .

Clean-up work is finished and a million-dollar construction program has begun at Manganese Incorporated, partially destroyed by fire in June. The plant will be shut down for at least six months while repairs are being made. New prefabricated steel mills will be built to replace the two mills razed in the \$250,000 fire. Manganese, Inc., is milling manganese ore for the federal government stockpile and is one of the few companies in the country handling fairly highgrade ore.

Hawthorne, Nevada . . .

Ninety tons of ore per day is the present production of Nevada Scheelite Division of Kennametal, Inc., from its operations at the Leonard mine and mill in the Regent district northeast of Hawthorne. The mill has a capacity of 150 tons, and future expansion is planned. Processing methods consist of a ball mill and table flotation to recover the tungsten from the ores.—*Pioche Record*.

Farmington, New Mexico . . .

A former taxi driver who followed a clue left in the writings of Coronado believes he is on the track of the world's largest diamond field in Arizona. John W. Donowick of Farmington isn't revealing the location of his potential diamond find, but he has obtained a prospecting permit and option to lease three square miles on the Navajo reservation.—*New Mexican*.

Tucson, Arizona . . .

A contract calling for production of 5½ million pounds of Arizona copper has been signed by the federal government and Copper Creek Consolidated Mining Company of Tucson. Copper Creek will produce the metal from the Old Reliable Mine in the Bunker Hill district of Pinal County. The copper will be extracted by caving the ore underground and leaching it with water and sulphuric acid without removing the ore from the mine.—*Battle Mountain Scout*.

Jerome, Arizona . . .

Verde Exploration, Ltd. plans further exploration of its properties in the Jerome Mining District. Subject to the approval of stockholders, a contract has been negotiated with New Jersey Zinc Company under which New Jersey Zinc agrees to spend a preliminary \$50,000 in 1953 for exploratory drilling. Verde would give to the developing company an option on all its properties to be exercisable by a company to be formed by New Jersey Zinc, owned 51 percent by it and 49 percent by Verde.—*American Metal Market*.

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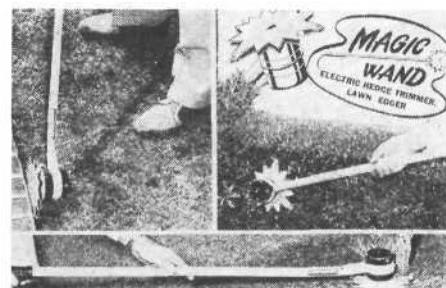
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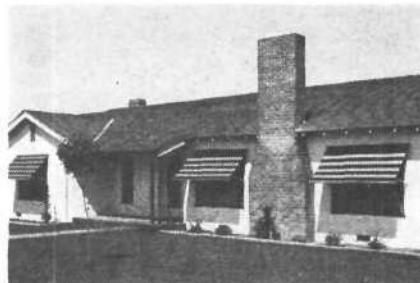
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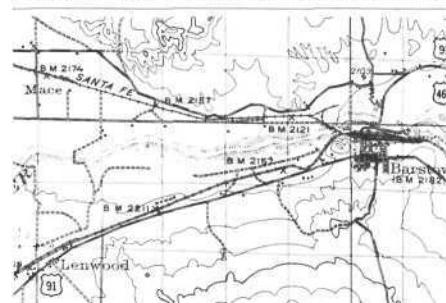
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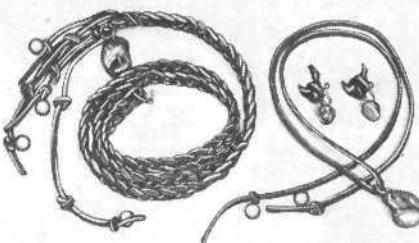
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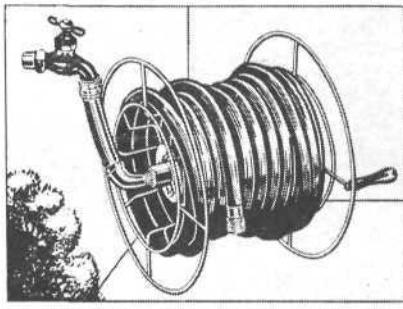
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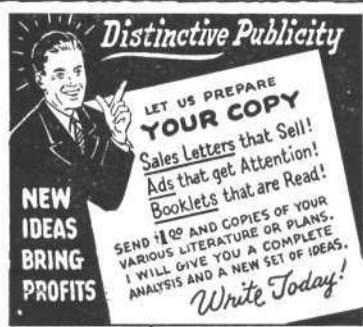


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THE *Desert* MAGAZINE

Palm Desert, California

Here and There on the Desert

ARIZONA

Discover Indian Ruin . . .

PREScott—A spectacular, multi-storyed Indian ruin has been discovered by two Yavapai County men in a well-watered canyon south of Bloody Basin. Ralph Williams, managing editor of the *Prescott Courier*, reported that the storehouse of Indian treasures would rival the 100-room Tuzigoot National Monument near Clarkdale. Williams, who packed in to the site with Wayne Winters, an engraving firm owner and photographer, said the village is an extensive pueblo, many stories deep and almost completely surrounded by a rock wall fortification. He declined to fix the exact location until measures can be taken to protect the find from vandals. —*Phoenix Gazette*.

Meteorite Museum Moving . . .

SEDONA—The American Meteorite Museum, formerly located about 15 miles west of Winslow, will move to Sedona in September, according to Dr. H. H. Nininger, director. Dr. Nininger said the entire museum operation would be transferred, including the exhibits, one of the most extensive meteorite displays in the world, and his research work. The new quarters, on Highway 89-A, will be large enough to display the museum's entire collection, which was not possible at Winslow. Dr. and Mrs. Nininger maintained the museum there for seven years, during which time the scientist carried on extensive research work at nearby Meteor Crater.—*Coconino Sun*.

Boundary Parley Slated . . .

PHOENIX—Negotiations between Arizona and California over the location of the common border formed by the Colorado River will begin after September 1. On that date a new California law will become effective, creating a California Colorado River Boundary Commission and appropriating \$150,000 for geographic surveys. The Arizona Legislature created a similar commission and appropriated the same amount last spring.—*Yuma Daily Sun*.

TOMBSTONE—With the announcement that Ft. Huachuca must close, the Ft. Huachuca Natural Museum decided to accept Tombstone's offer and move exhibits to temporary galleries in the Ed Shefflin Museum in Tombstone.—*San Pedro Valley News*.

Historical Group Expands . . .

FLAGSTAFF—All adult natives of Arizona and all others who have been residents of the state for 30 years or more were invited to the first organization meeting of the Northern Arizona Chapter of the Arizona State Pioneer's Historical Society. The meeting, planned by George Babbitt, a vice-president of the state group, was held in Flagstaff July 10.—*Coconino Sun*.

Consider Forest Purchase . . .

WASHINGTON—Purchase of 98,690 acres of lands from the Aztec Land and Cattle Company with National Forest funds has been declared "feasible" by Secretary of Agriculture Ezra T. Benson. The land would be returned to Sitgreaves National Forest from which it was taken recently and awarded to Aztec by a federal court decision following 40 years of litigation.—*Aztec Printer-Review*.

FLAGSTAFF—Frederick R. Brueck, superintendent of Wupatki and Sunset Crater national monuments since March, 1951, has been transferred to Zion National Park.—*Coconino Sun*.

Key to Death Cell . . .

TOMBSTONE—The key which once controlled the death cell at the old Cochise County jail at Tombstone has been presented to the city by Mrs. Gertie M. Sands of Sacramento, California, whose late husband was jailer under Cochise County's Sheriff Harry Wheeler in the first decade of this century. Sands died in an automobile accident in 1930. He acquired the key as a memento of his services after the old cells were razed to make way for new steel cubicles. It will be added to a growing collection of articles reminiscent of Tombstone's hellion days.—*Tombstone Epitaph*.

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Probe Mystery Deer Deaths . . .

PHOENIX—The Arizona Fish and Game Commission has confirmed reports of deer dying in the Huachuca and Chiricahua mountains, after investigation by game department technicians. The commission said that the deaths have been confined to the white-tailed deer and that the die-off has not approached epidemic proportions. Cause of the deaths has not been determined.—*Yuma Daily Sun*.

COUNTY MAPS

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MISCELLANEOUS

SEND FOR: List of dried floral materials for arrangements, home decorating. Mel Capper, Box 70, Palm Springs, California.

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DODGE 4 WHEEL DRIVE, carryall body. Complete overhaul. \$450.00. John Diedrich, 4557 Backman Ave., North Hollywood, California.

WOULD LIKE TO LOCATE Caves containing bat roosts in southern Arizona. Would some reader kindly send me such information. Rex B. Gullick, Rt. 7, Box 528, Tucson, Arizona.

PAN GOLD: 75 spots in 25 California counties for placer gold. Township, range, elevation, geological formation. Possible health, happiness, hideaway, hunt, hike, fish, camp. Pan and tweezier pick yellow golden nuggets. \$1.00, Box 42132 Los Angeles, California. Also panning pans \$2.25, \$2.75. Nugget tweezier \$1.00. Leather dust poke \$1.00.

DESERT TEA. One pound one dollar postpaid. Greasewood Greenhouses, Lenwood, Barstow, California.

SCENIC KODACHROME SLIDES: Southwestern Desert country, Indians, National Parks, Mexico. Catalogue 10c. Jack Breed, RFD-4, Georgetown, Mass.

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"Rawhide Jimmy" Transferred . . .

COTTONWOOD — Tuzigoot National Monument lost its superintendent and the mine museum in Jerome its founder, planner and chief architect when James W. Beaver, Jr., accepted a transfer by the National Park Service to Wupatki National Monument northeast of Flagstaff. Beaver, known as "Rawhide Jimmy," had been at Tuzigoot three years. Twenty years ago he was first resident Park Service employee at Wupatki where he had charge of archeological excavations. — *Verde Independent*.

CALIFORNIA

Wetbacks Total 406,507 . . .

CALEXICO — Mexican wetbacks crossing the California and Arizona borders reached a flood tide of 406,507 persons during the fiscal year 1952-53. The official figure of apprehended illegal Mexican migrants was released by Herman R. Landon, district immigration officer for Southern California and parts of western Arizona. The flood of illegal entrants taxed his limited facilities to the utmost, Landon said, and at times airplanes were pressed into service to return the line-jumpers.—*Los Angeles Times*.

Canyon Closed for Summer . . .

PALM SPRINGS — Indian Agent Ned Mitchell reminded Palm Springs visitors that there is no entry to canyon areas owned by the Mission Band of Agua Caliente Indians during the summer because of the tremendous fire hazard. Palm Canyon, which was closed June 2, will reopen about October 1, he said. Meantime, any organized groups, such as Boy Scouts or church organizations, wishing to make a sightseeing tour may secure a permit for a supervised tour by calling at the office, 128 North Indian Avenue. — *Desert Sun*.

Salton Sea Gains Shellfish . . .

INDIO—In its program to bring more anglers to the Salton Sea, the California Department of Fish and Game has turned to ocean shellfish. Recently 3500 Japanese littleneck clams, 20,000 Japanese seed oysters and a number of Southern California clams and mussels were planted in the large salt water lake. Regional Manager John S. Janssen reported that the clams were all dead one week after planting, but that the oysters and mussels appeared to be doing well. Establishment of shellfish populations in the Salton Sea will furnish food for the ocean fish planted there in the past few years and may later provide a separate sport fishery.—*Imperial Valley Weekly*.

Tagged Pheasants Released . . .

FORT INDEPENDENCE — More than 250 adult pheasants, including 168 roosters and hens, were released in the Fort Independence area in July by the California Department of Fish and Game. The group is specially tagged, and a follow-up study will be made during the open season to determine the survival and the take by hunters. More pheasants will be released later.—*Inyo Independent*.

Landmark Destroyed by Fire . . .

LONE PINE—The showplace home of Mrs. Peg Putnam at Whitney Portal was completely destroyed by fire in July. Mrs. Putnam, who was severely burned in the accident, said she was trying to light a water heater when it exploded, enveloping the house in flames. The picturesque dwelling was built nearly 15 years ago by Father John J. Crowley, the "Desert Padre," as a home, retreat and shrine. Damage to the dwelling was estimated at \$20,000, but relics, curios and museum pieces on which Mrs. Putnam could place no monetary value also were lost in the blaze.—*Inyo Independent*.

Ban on Shirtless Strolls . . .

PALM SPRINGS — Expecting "plenty of discussion," Councilman Jerry Nathanson proposed at a council meeting that Palm Springs adopt a city ordinance prohibiting men from walking on Palm Canyon Drive without wearing a shirt. Jerry Bunker, city attorney, was instructed to draw up such an ordinance. Mayor Charles Farrell said the proposed ordinance could start a heated controversy and recalled the opposition when a similar law was proposed a number of years ago. Nathanson indicated his proposal was not based on morality or scantiness of attire. He argued it would help cafe and restaurant owners to protect squeamish customers who do not like to sit next to shirtless men.—*Desert Sun*.

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Inyo-Mono Streams Protected . . .

INYO—Governor Earl Warren has signed Senate Bill No. 78, requiring that water be left in Inyo-Mono streams for the preservation of fish and wildlife. The new law is designed to prevent drying up of streams, as occurred recently in the Owens River Gorge.—*Inyo Independent*.

Sea Rising Despite Heat . . .

INDIO—Salton Sea is not behaving in its accustomed manner this summer. C. S. Hale, chief engineer and general manager of Coachella Valley County Water District, reported that on July 3 the level of the sea was 236.69 feet below sea level, compared with 236.78 on June 22—a rise of .09 of a foot. "Normally," Hale said, "the sea should be going down at this time of year."

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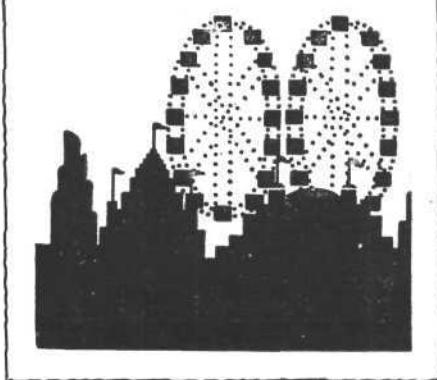
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NEVADA

Nevada Assured Power . . .

CARSON CITY—"We're sure now that we'll get some power, but we're still trying to work out the details of just how much and when it can be delivered," Governor Charles Russell assured Nevada residents. The Nevada Colorado River Commission is continuing discussions with Arizona officials to work out an agreement whereby Nevada can obtain off-peak Arizona power.—*Las Vegas Review-Journal*.

Desert States Show Gain . . .

CALIENTE—Of the three states which showed the greatest percentage of population increase since 1950, two of them were desert states, according to figures released by the U. S. Census Bureau. Nevada, Arizona and Florida all showed a gain of more than 10 percent, Arizona being the greatest with 14.5 percent. California showed the greatest gain in numbers with an increase of 804,000 persons.

Drouth Claims Cattle . . .

LAS VEGAS — A serious drouth swept across the central Nevada cattle belt in July, killing an estimated 200 steers in Nye County alone. Old-timers at Tonopah called the drouth the worst

in their history, and conditions were equally critical at Ely where Secretary George Swallow of the United Stockman's Association appealed for state and federal aid to save remaining stock. Even heavy rain could not restore the burned off rangelands which returned waterholes to dust. — *Las Vegas Review-Journal*.

Jackrabbits Move In . . .

ELY—With drouth conditions prevailing throughout the state, hoards of jackrabbits moved in on alfalfa, grain, grass and hay fields, causing extensive damage and further shortening feed for stock. Frank Morrow, extension agent for the University of Nevada, advised ranchers and farmers to bait access strips to their fields, poisoning the rabbits as they approach cultivated areas.—*Ely Record*.

New Reclamation Head Named . . .

WASHINGTON—New Reclamation Commissioner Wilbur A. Dexheimer, appointed in July by President Eisenhower, said his big problem is developing a national water policy that will benefit all the people. "If we can get such a decision out of Congress, it will be a long way toward ending the conflict of interests between the Army Engineers and the Reclamation Bureau," he added. The two agencies fre-

quently clash over the primary function of water power projects, the engineers emphasizing flood control and the Reclamation Bureau irrigation. Dexheimer said he will follow the power development policies of Secretary of Interior Douglas McKay.—*Las Vegas Review-Journal*.

Okay Hospital Transfer . . .

WASHINGTON — The House interior committee has approved a bill to transfer operation of Indian hospitals from the Interior Department's Indian Bureau to the Welfare Department's Public Health Service, effective next July 1. The bill would allow the new Department of Health, Education and Welfare to turn over the hospitals to state and private non-profit agencies whenever such action would better meet health needs of the Indians. — *Humboldt Star*.

NEW MEXICO

Object to State Control . . .

WASHINGTON — A move to extend state criminal and civil jurisdiction over Indian reservations is apparently dead as far as New Mexico and Arizona are concerned after meeting with opposition from the Navajo tribe. The House interior committee excluded the two states from a bill to extend state authority over Indian lands, then approved the bill for passage. "Too few Navajos understand English to make the measure workable for the Arizona and New Mexico reservation," argued Norman Littell, attorney for the Navajo tribe. As approved, the bill applies only to California and parts of Minnesota, Nebraska, Oregon and Wisconsin.—*Humboldt Star*.

Navajos Face Land Loss . . .

ALBUQUERQUE — Presidents of three New Mexican Navajo communities are complaining that the Bureau of Land Management threatens to throw Indian herders off ancestral lands unless federal grazing fees are paid. In a letter to Secretary of the Interior McKay made public by James Counselor, veteran Indian trader and friend of the Navajos, the officials charged that their pleas to Washington for a hearing on what they consider unjust grazing charges have gone unheeded. "We are told by the Bureau of Land Management that if we don't pay our grazing fees by July 1 we will lose our grazing rights in District 7. How are we going to pay grazing fees if we don't have no moneys?" the letter said. It was signed by five officials of the off-reservation Navajos of northwestern New Mexico. — *New Mexican*.

Photo Contest in September . . .

September generally is a month of unusual cloud effects in the desert country—and clouds are excellent background composition for most types of photographs. There are many subjects for the desert photographer — prospectors, Indians, ghost towns, rock formations, sunsets, wildlife, rare botanical specimens, the field is almost unlimited. Again in September Desert Magazine will offer cash prizes for the best pictures received for publication.

Entries for the September contest must be in the Desert Magazine office, Palm Desert, California, by September 20, and the winning prints will appear in the November issue. Pictures which arrive too late for one contest are held over for the next month. First prize is \$10; second prize \$5.00. For non-winning pictures accepted for publication \$3.00 each will be paid.

HERE ARE THE RULES

- 1—Prints for monthly contests must be black and white, 5x7 or larger, printed on glossy paper.
- 2—Each photograph submitted should be fully labeled as to subject, time and place. Also technical data: camera, shutter speed, hour of day, etc.
- 3—PRINTS WILL BE RETURNED WHEN RETURN POSTAGE IS ENCLOSED.
- 4—All entries must be in the Desert Magazine office by the 20th of the contest month.
- 5—Contests are open to both amateur and professional photographers. Desert Magazine requires first publication rights only of prize winning pictures.
- 6—Time and place of photograph are immaterial, except that it must be from the desert Southwest.
- 7—Judges will be selected from Desert's editorial staff, and awards will be made immediately after the close of the contest each month.

Address All Entries to Photo Editor

The Desert Magazine

PALM DESERT, CALIFORNIA

Indian Head Nominated . . .

WASHINGTON — Glenn L. Emmons, Gallup banker, has been nominated by President Eisenhower to be commissioner of Indian affairs. When confirmed by the Senate, Emmons will succeed Dillon S. Myer, who resigned. Emmons, 57, has been president and chairman of the board of the First State Bank of Gallup since 1935. Friends say he knows at least 1000 Indians by their first names. The nomination was immediately hailed by the Navajo tribe, but spokesmen from the All-Pueblo Council criticized the choice, doubting the banker's knowledge of Indian affairs.—*New Mexican*.

Replacements for Elmer . . .

ALBUQUERQUE—Elmer is dead. The horned toad who won considerable notoriety a year ago when he left New Mexico for Boston and a group of school children who longed to own an honest-to-goodness horned toad, passed away in July. "To begin with, the Massachusetts winter was too cold for him," wrote School Superintendent Harold B. Groves, "and then the children found an article on Elmer in a national children's paper and shoved it into his cage. Since he couldn't read it, Elmer ate it. He died a few days later." Upon learning of Elmer's fate, sympathizers sent a total of 23 horned toads to take his place.—*New Mexican*.

Increase White Sands Area . . .

ALAMOGORDO — White Sands National Monument was increased in size by 450 acres in a directive issued in July by President Eisenhower. Johnwill Farris, superintendent of the monument, stated he did not have complete information about the land acquisition, but he believed it was an adjustment of lands to which the government had no clear title.—*Alamogordo News*.

Continue Century-Old Battle . . .

ALBUQUERQUE — Indians from the Sky City of Acoma have resorted to the white man's court to continue a 102-year-old battle for compensation for ancestral lands. They argue the land was unjustly taken from them by the government in the Acoma Grant of 1858 and ask the government to reimburse them for the value of the land at the time of the grant. The Indians say Congress confirmed the grant of 95,792 acres without correct surveys. And they charge that repeated demands that lands not included in the 1858 grant belong to Acoma Indians have been ignored by the government since the first protest in 1851. The Indians claim the lands have been theirs "since God created this earth."—*New Mexican*.

UTAH

Contracts Deny Utah Water . . .

VERNAL—Due to neglect or oversight, Utah technically is not entitled to use a drop of Virgin River or other Colorado River system water below Lees Ferry. This startling fact was pointed out by J. A. Howell, chairman of the Utah Water and Power Board. According to Howell, under the Boulder Dam Project Act and subsequent contracts by Secretaries of the Interior, all of the 7,500,000 acre feet of water allocated to the lower basin has been distributed to other states. The board is now seeking approval of Governor J. Bracken Lee to appoint a commissioner to prove Utah's rights to a portion of the water.—*Vernal Express*.

Encourage Tourist Trade . . .

SALT LAKE CITY—A series of films, books and pamphlets describing tourist attractions of Utah will be distributed to travel agencies and chambers of commerce throughout the nation by the Utah Tourist and Publicity Council. The books will include a comprehensive study of the state and a recreation guide listing fishing and hunting possibilities. —*Washington County News*.

Improve Monument Roads . . .

VERNAL—Scenic sections of Dinosaur National Monument are more accessible to tourists now, thanks to considerable road improvement work. Particular attention was given recently to the scenic outlook at Harpers Corner which affords an excellent view of the deep canyon country.—*Vernal Express*.

Suspect Sheep Malnutrition . . .

CEDAR CITY — Malnutrition rather than radioactivity from atomic bomb explosions at Frenchmen's Flat has been tentatively blamed for the mysterious disease which recently caused heavy loss in Utah sheep flocks. The death of perhaps 1000 head of sheep and lambs in the herds of five Cedar City sheepmen who were grazing their animals near the atomic proving grounds in Nevada prompted a thorough investigation of the mysterious malady. According to investigators, the malnutrition was brought on by poor range conditions.—*Kane County Standard*.

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To Continue Rainmaking . . .

MONTICELLO — Eight southern Utah counties have agreed to continue financial support of rainmaking experiments which have been conducted in the area for the past two years. Whereas previous contracts have been drawn up on a year-to-year basis, the one signed by southern Utah stockmen and farmers and a Denver cloud seeding firm in July will assure continued weather modification work for the next five years.—*San Juan Record*.

Dinosaur Status Changed . . .

VERNAL — Dinosaur National Monument has been placed directly under the regional offices of the National Park Service at Omaha, Nebraska, according to Monument Superintendent Jess H. Lombard. The change became effective July 1. In the past the monument has been under the coordination of Rocky Mountain National Park at Estes Park, Colorado, and Superintendent David H. Canfield. The administrative change is a general move throughout the Park Service. Several other monuments, formerly under general or coordinating superintendents, have been put under direct supervision.—*Vernal Express*.



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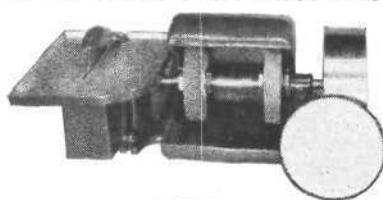
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GEMS and MINERALS

UNANIMOUS VOTE CAST FOR HOLLYWOOD NOMINEES

Unanimously elected to offices in the Hollywood Lapidary Society were Glenn Elsfelder, president; W. A. Stephenson, vice-president; Mr. and Mrs. Kephart, treasurers; Imogene Wilson, director.

INSTALL NEW OFFICERS AT ANNUAL BANQUET MEETING

At its annual banquet in Oakland, California, the East Bay Mineral Society elected the following officers: Ernest M. Stone, president; Dr. F. M. Yockey, vice-president; Mrs. Dennis C. Patterson, secretary, and W. R. Watson, treasurer. Directors are Sidney Smith, Robert W. Weichman and Clarence Cole. George L. Higson is club historian, and library duties will be continued by Mrs. O. R. Russell.

NEBRASKANS ELECT OFFICERS BEFORE CLOSING FOR SUMMER

At the last meeting before fall for Nebraska Mineral and Gem Club, Omaha, officers were elected for the coming year. Thomas A. Cherry is new president; Arthur Henry, vice-president; John Hufford, secretary-treasurer. Directors are Harry Cowles, Monroe Dodds, Mrs. Earl Grantham and Joe B. Kiely.

SAN FRANCISCO SOCIETY PLANS GEM FAIR IN OCTOBER

October 17 and 18 are the dates chosen by the Northern California Mineral Society for its San Francisco Gem and Mineral Fair. The show will be open to the public free of charge, and it will feature exhibits covering the lapidary, mineral collecting and jewelry making hobbies.

CLUB PLANS FIFTH ANNUAL EXHIBIT AT COUNTY FAIR

Victor Valley Gem and Mineral Club is holding its fifth annual exhibit this year in conjunction with the San Bernardino County Fair, August 26-30 at the fairgrounds in San Bernardino, California.

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The front range region to the west of Denver was the July destination of Colorado Mineral Society. The area yields pyrite, chalcopyrite, rhodochrosite, galena, sphalerite and other sulfide minerals.

CLARENCE CHITTENDEN HEADS L. A. LAPIDARIES

At the June dinner meeting of Los Angeles Lapidary Society, Clarence Chittenden was elected president. Serving on his board during the 1953-54 season will be Howard Evans, first vice-president; Charles Cook, second vice-president; Charles Parsons, treasurer; Mrs. Claire Schroeder, recording secretary, and Mrs. Nell Stein, corresponding secretary. Dinner speaker was Dr. Rudolph Von Huene of California Institute of Technology, whose subject was "Thin Sections."

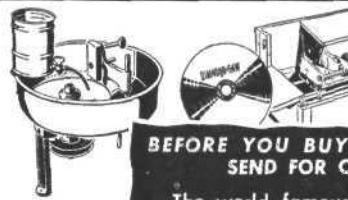
RARE MINERALS FOUND IN RIVERSIDE QUARRY

Two rare minerals have been added to the list of one of the world's largest natural mineral collections found at Crestmore Quarry near Riverside, California. Scawitite and Aftwillite were discovered recently by Dr. Joseph Murdoch, geologist from the University of California at Los Angeles. The former, a colorless crystalline calcium carbonate-silicate, has been found in only two other locations in the world—Ireland and Montana. Aftwillite also has but two other known sources—Ireland and the Kimberley region of Africa. Neither mineral has any commercial value, but both are of interest to geologists because of their rarity and unusual structure. The discovery of the two minerals brings to more than 130 the total number of minerals known to exist in the quarry.

Dr. Arthur Montgomery was invited to discuss his new book, *Pre-Cambrian Geology of the Picuris Range, North Central New Mexico*, at a meeting of the Santa Fe Gem and Mineral Club.

An unusual line of "cosmetics" was demonstrated by Vearl Hooper for the ladies of Dona Ana County Rockhound Club, Las Cruces, New Mexico. He daubed Annie Hooper with household products such as iodine, mentholatum, machine oil and vasoline, then showed the results under a fluorescent light.

Joe Zimmerman, field trip chairman of Tacoma Agate Club, planned a July outing to Roosevelt to search for petrified wood.



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AMONG THE ROCK HUNTERS

SAN FERNANDO VALLEY SHOW SEPTEMBER 26, 27

September 26 and 27 are dates set by the San Fernando Valley Mineral and Gem Society for its 1953 show. Exhibits will be displayed in the group's regular meeting place, the Victory-Van Owen Playground, 12240 Archwood, North Hollywood, California. A wide variety of mineral specimens and lapidary work will be shown.

Several good agates—including a seven-pound one found by Hilda Stuvetro—were brought back by Minnesota Mineral Club members from a field trip to Little Falls. The specimens were found in a nearby gravel pit.

Ronald Geitskell demonstrated sandcasting for Glendale Lapidary and Gem Society.

Frank Wilcox of Oakland was guest speaker for Sacramento Mineral Society at a recent meeting. He discussed jade, rhodonite and opal, displaying sample specimens of each.

At the July picnic of Evansville Lapidary Society, Evansville, Indiana, Ralph Drury, director of the Cincinnati Natural History Museum, presented a program of movies. The picnic was held at Angel Mounds.

A campfire program followed Minnesota Mineral Club's Annual picnic, held at Harrison Park in St. Paul, Minnesota. Bill Birmingham gave a report on the Midwest Federation Convention held in St. Louis this year.

Members of San Fernando Valley Mineral and Gem Society were urged to bring "bragging rocks" and "swapping rocks" to the September meeting. A campfire program and community sing were planned.

North Shore of Lake Superior was the destination of Minnesota Mineral Club on an August outing. Thomsonite, mesolite, lintonite, howlandite and amethyst are to be found there, as well as thunder eggs and agate. The group camped overnight and had two days of hunting.

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MINERAL SHOW PLANNED AT PARADISE FALL FETE

Paradise Gem and Mineral Club will stage its annual show this year in conjunction with the Paradise Fall Festival and Apple Show, September 25 to 27 in the Veterans' Memorial Building in Paradise, California.

It was "Stump the Experts Night" recently for San Antonio Rock and Lapidary Society, San Antonio, Texas. A panel of members attempted answers to questions offered from the audience. The following meeting featured a lecture on crystallography and the formation of west Texas agate.

Mr. and Mrs. George Cahoon were hosts to Wasatch Gem Society recently. They guided a trip through the Interstate Brick Company factory in Salt Lake City, then opened their home for an outdoor meeting.

Meteorites were discussed by Victor Arceaga at a summer meeting of Los Angeles Lapidary Society.

Semimonthly outdoor potluck supper meetings are on the summer agenda of El Paso Mineral and Gem Society, El Paso, Texas.

Potluck supper was enjoyed by Fresno Gem and Mineral Society at Member Minnie La Roche's tearoom in Fresno. After eating, members swapped rocks.

"Mineral exploration was the primary purpose of the Byrd Expedition to Antarctica," L. C. Musselman told members of Pacific Mineral Society. Much of the data obtained is still secret, but the speaker said copper, iron, radium, asbestos, shales and limestone were found as well as coal and fern fossils evidencing a semi-tropical climate prevailed in the region at one time.

Minnesota Mineral Club has a "stone bank" which accepts contributions from members for use as door prizes and gifts for guest speakers.

Gem Cutters Guild members Rex Pagett, Gertrude Saling and Mr. and Mrs. A. C. Gustafson displayed minerals, gems and Indian arrowheads at a meeting in Los Angeles.

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Wyoming State Mineral and Gem Societies convened in Cheyenne for two days of exhibits and meetings. Approximately 1000 visitors registered. Displays covered all phases of the mineral collecting and lapidary hobbies.

Committees were named and plans for the coming year mapped at the annual picnic and outdoor meeting of Palm Desert's Shadow Mountain Gem and Mineral Society held in Idyllwild, California. Heading committees in 1953-54 will be Mary Ann Wahrer, membership; Dorothy Darlington, constitution and by-laws; Henry Hyatt, field trips; Joe Hughes, program; Don Butterworth, gem shows; Ray Purves, education; Margarita Kerschner, club historian and publicity; Maurice Wright, bulletin editor; Blanche Bechoff, hospitality, and Henry Dupske, custodian.

Hollywood Lapidary Society joined the Los Angeles Lapidary Society on a summer field trip to Horse Canyon, California.

A perfect attendance record was chalked up by the jewelry class of Tacoma Agate Club which completed its six-week course June 29. Instructors were Chet Barton and Edith Heilman.

Quartz crystals with chlorite inclusions were prizes brought back by Northern California Mineral Society rockhounds from a recent field trip to Shingle Springs. During their hunting, the members came upon a small creek and spent some hours panning for gold. The trip was planned by Bob White, club president.

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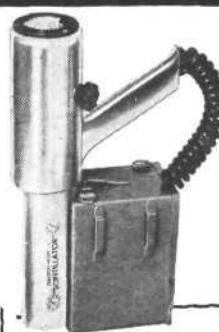
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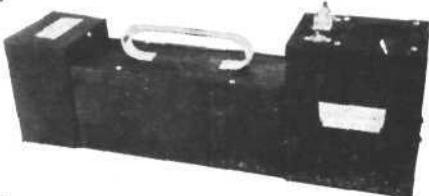
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Gem Cutters Guild of Los Angeles won first-prize honors for the best gem exhibit in the recent San Diego convention of the California and American Federations of Mineralogical Societies. Having won this award also in 1949 and 1950, the society now gains permanent possession of the engraved prize plaque. A 386-carat blue topaz; spheres of tourmaline, amethyst, garnet and beryl; a sterling silver tree studded with amethyst, citrine and other quartz stones; arrowheads and many other single cut gems were included in the prize-winning case. All were cut by club members. In charge of the display were Howard A. Boblet, chairman; Dorothy Craig, Ross Jester, Ernest Pauls, Louis Roth, Arthur Terry, Jack Craig and Ralph Nowak.

Helen and Stan Brattaine came up with a rockhound limerick in the July issue of *Rockhounds Call*, Compton Gem and Mineral Club Bulletin:

"A collector named Algernon Fox
In the attic stored ten tons of rocks,
When the attic fell in.
He said with a grin,
'Now Fox will have rocks in his socks.'"

The Stone Age, bulletin of Santa Fe Gem and Mineral Society, published a warning for litterbugs: "When the old Spanish Conquistadores stopped at what is now Inscription Rock in New Mexico, some of them cut in the face of that great stone the words, *Paso por aqui* (There passed this way) and then their names, sometimes with a few words of the story of their exploration and conquest. Today, when people litter a lovely picnic site or mine dump with paper plates, cups and other trash, they too write on the face of the earth, "*Paso por aqui* and sign their names."

Annual auction of San Fernando Valley Mineral and Gem Society netted \$168.11 for the club treasury.

The metal thallium derives its name from the Greek word *thallos*, meaning "green twig." It shows as a green line in the spectroscope.

A full day was planned by John Hufford for a field trip group from Nebraska Mineral and Gem Club. After an unproductive morning trip to the Roca Quarry, a picnic was held at Lincoln's Antelope Park with rockhounds from Hastings Nebraska Gem Club, following which a tour was made of exhibits at Nebraska University. Late in the afternoon, the group drove to the Gage County Highway Quarry southeast of town. The quarry is high in the hills above Blue River Valley, and only the upper strata of the Permian formations are exposed. The top limestone layer produced poor to fair quartz crystals in vugs. Racing against darkness, the field trippers then transferred operations 15 miles southwest and found some good barium sulphate crystals before the sun set. These crystals, sometimes called "Odell diamonds," are diamond-shaped parallelograms having opposite angles of 78 and 102 degrees. Some measured an eighth of an inch while larger ones measured one-half inch. Some of the creamy crystals had two or three phantom shapes, and a few twinnings were found.

"Brazilian diamonds, because of their very fine grain, take twice as long to cut as African diamonds," F. F. Frost of Belmont, diamond cutter for leading San Francisco jewelers, told members of the Gem and Mineral Society of San Mateo County, California. According to Frost, it usually takes about a day, using a thin sheet of bronze, to cut a one-carat stone. Only five percent of diamonds mined are of gem type. The other 95 percent together with the amounts ground away in the shaping of gems—and, he said, a stone loses 50 to 60 percent in cutting—goes into commercial uses for polishing powders, cutting tools and the like.

Tacoma Agate Club of Tacoma, Washington, invited members and friends of the society to its annual picnic, scheduled August 16 at Salt Water State Park. Games, prizes and swimming were planned after potluck luncheon. In addition to a swap table, each person brought a wrapped specimen for exchange.

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BULLETIN EDITORS SUGGEST HOW TO PRESERVE SPECIMENS

The editors of the San Fernando Mineral and Gem Society's bulletin, *Rocks and Gems* have some tips for the specimen collector. "Minerals which become moist in damp air and eventually dissolve are deliquescent, that is, composed of copper sulfate," a recent article explains. "To prevent their dissolution, laquer the specimens and keep in a dry atmosphere. Valuable specimens may be kept in a case with a tray of quicklime to absorb the moisture." The opposite treatment is advised for minerals which lose water and fall to pieces. Effervescent minerals like opal and turquoise behave in this manner, turquoise turning greener as it loses water. The San Fernando editors suggest keeping these minerals in a moist atmosphere, laquering them or placing them in a jar of water.

Jessie Hardman recently presented her "Gem Stones of the United States" program for Delvers Gem and Mineral Society, Downey, California. Outstanding among the gems she displayed were diamonds from Arkansas, the Appalachian Mountains and the Lake Superior district; sapphires from Montana and North Carolina; emeralds from North Carolina; star garnets from Idaho; tourmaline from San Diego and Riverside counties in California, and benitoite, found only in San Benito County, California.

Victor Arciniega visited Compton Gem and Mineral Club in July and spoke on gem identification and inclusions in gem stones. Ten-minute speaker was Member Bill Iandiorio.

John Louden brought a Geiger counter and a scintillometer to the July meeting of Delvers Gem and Mineral Society, Downey, California, to illustrate his talk on identification of and prospecting for radioactive ores. A question-and-answer period followed the lecture, and members submitted radioactive samples for testing.

Chalcedony fields near Kingston were visited by a field trip group of Dona Ana County Rockhounds from Las Cruces, New Mexico.

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Everett Rock and Gem Club, Everett, Washington, chose the Miller River Forest Camp for its 1953 "Gemboree." Barbecued salmon steaks were enjoyed at picnic supper, and campfire activities afterward.

George Green of the Tacoma, Washington, Agate Club, told fellow members how to reach the arsenic deposits near La Conner, Washington. "Take Highway 99 to Mt. Vernon, then west to La Conner," he wrote in the May issue of the club bulletin, *Puget Sounder*, "cross the river, take the first gravel road to the left and follow it to its end. Here is a nice camp site. To find the arsenic, hike east along the trail, along the high cliff a quarter of a mile, then descend to the beach at the end of the little cove. Proceed around the point for another good quarter of a mile and keep going until you find the mineral area." Green recommended arsenic ores as colorful additions to mineral collections. Arsenic is associated most commonly with silver, cobalt or nickel ores.

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Richard Pearl has compiled a history of the Colorado Mineral Society. He read it at a meeting in Denver. The club was founded in 1936.

"Rockhound IQ" is a regular quiz feature in the *Sooner Rockologist*, bi-monthly bulletin of the Oklahoma Mineral and Gem Society, Oklahoma City. Questions, all pertaining to mineralogy, are entertaining as well as educational.

Bob Rawlins of Las Vegas, Nevada, told Clark County Gem Collectors of his successful field trip into Utah for topaz and trilobites. So impressed was his audience, that the club planned a trip to the site.

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AMATEUR GEM CUTTER

By LELANDE QUICK, Editor of The Lapidary Journal

We have just returned from the biggest and best gem and mineral show that has ever been held to date—that of the San Diego Mineral & Gem Society, put on for the California and the American Federations of Mineralogical Societies. It was the best organized and the smoothest running show we have ever attended. And that is casting no reflection at all upon any past show, for the San Diego Society could not have done it so well if they had not given serious study to the mistakes of past shows and profited by avoiding them.

The total paid attendance ran beyond 11,000 by closing time. There was plenty of space in four big rooms under one roof to see 169 cases of privately exhibited gems and minerals in addition to the commercial displays of 68 firms and individuals. We doubt if any one of the 11,000 people attending ever really examined 25 percent of the items exhibited. And that wasn't because the show was too crowded for never before have aisles been so wide and so much room for viewing been offered. And it wasn't because the cases were poorly lighted for never before has there been such an orderly array of well lighted cases with plenty of educational and esthetic material to be seen. No one could see all the show because there were so many thousand items to be seen.

One wonders just what would happen if each member society of a Federation would decide to display. For, as usual, not 50 percent of the member societies had enough interest in the convention and show to enter a case in the society's name. Only 30 societies displayed and the California Federation has 74 members. Could it be that many of the rest just didn't have anything to display? We are inclined to think that is the case.

It is quite a grind to sit behind a booth as we did for 12 hours a day for three days but it is compensated by the many hours of chatting with many fine friends from all over the land. Each year we see them; each year they look a little older—and so do we. Each year we get our share of visitors who tell us about something we said that they didn't like and we don't mind listening to them for they usually don't change our mind at all. Sometimes someone will accuse us wrongly, such as the man who said we ought to quit picking on the mineral collectors; that if they wanted to collect minerals and not polish rocks

that was their business. Now we never have picked on the mineral collectors except those few who still don't want the lapidaries to "improve on nature" by cutting and polishing rocks. The shoe was on the other foot, friend. We don't care what people do with their rocks; we just advocate cutting them up and saving some of the crystals uncut if you want to.

In this connection we are reminded of a quotation from Henry Thoreau who said—"if a man does not keep pace with his companions, perhaps it is because he hears a different drummer. Let him step to the music he hears." Ah yes, step to the music you hear for each man hears different drums in his life. That's why some of us live in the desert and this is beyond the understanding of the city man. That some of us hear drums in the desert to which we march, ignoring the noise and the smog of the cities, the traffic and sirens, the paved canyons, is beyond the ears of those attuned to that kind of living. But we have no quarrel with the city man; we like the city too. We have no argument with the mineral collector; we collect minerals too. However on our own march through life we listen for the quiet music of the desert and the drums of the lapidary hobby. We have come to have a quiet respect for all the eccentrics we meet because we now realize that they are odd only because they hear other drums.

* * *

The thing that we bought at the San Diego show that delighted us the most was not a rock. It was a half dozen test tubes filled with silica gel into which had been introduced various chemicals to infiltrate through the gel and show how agates are formed. These sets were made by J. H. Roblyer of Caldwell, Idaho and they are most interesting indeed. Mr. Roblyer has introduced mercury compounds into the gel to make Montana moss agate; lead compounds to make dendritic agate; mercury compounds to make myrckite; copper compounds to make a variety of gem materials such as chrysoprase, agate with spicules, other green gems; lead compounds to make aventurine quartz and gold compounds to make banded agates.

Of course Mr. Roblyer doesn't tell exactly what is in his compounds but it appears to be no trick to make all kinds of agate-like formations of gel in the laboratory. The chief value of the tubes is that they show, as no slides, pictures or texts can do, just how agates are made. If any reader wants to develop a good talk to give before his society or service club he could do no better than to get a set of these tubes, and a handful of agates that approximate them in appearance, and use them to illustrate his lecture.

* * *

Desert Magazine has many readers in the Northwest and we want them to know that we are going to give a lecture in the Auditorium at Portland, Oregon at 1 o'clock on Saturday, September 5. This will be at the convention and show of the Northwest Federation of Mineralogical Societies. We hope to meet many of our readers at that time and hope that you will come to hear our talk on *America's Third Largest Hobby* and see what promises to be the biggest gem and mineral show the Northwest has yet seen.

BOOKS of the SOUTHWEST

EDWIN CORLE REPEATS SAGA OF BILLY THE KID IN NOVEL

William Harrison Bonney might have been a good boy, might have grown into a fine young man and a good citizen. But, like the juveniles who pack the courts today, Billy the Kid made a mistake—then, first confused and afraid and later emboldened, followed it by other mistakes until there was no turning back. After a career written with a six-shooter and splashed in blood, Billy the Kid met a tragic end at the age of 21.

In a novel which packs accurate history into dramatic narrative, Edwin Corle tells Billy's story in his latest book, *Billy the Kid*. Here, for the first time, are told the scenes of Billy's birth in New York in 1859; the details of his first crime, the murder of a Chinese laundryman in the frenzied climax of a game of Indians and frontier scouts; the incident of how his only photograph happened to be taken and preserved for posterity; the true and poignant story of his one and only love affair; and the latest explanation of how he got the gun that enabled him to make one of the greatest escapes in all history.

Long a student of the American Southwest, Edwin Corle first visited the scenes of Billy's career 20 years ago. He has listened to many a tale and read all the evidence since then and, sifting fact and folklore, has reconstructed the Kid's life as faithfully as possible. While this book is a novel, it hews closer to the facts than many a previous biography.

Published by Duell, Sloan and Pearce — Little, Brown. 293 pages, bibliography. \$3.75.

NEW GUIDE REVEALS BEAUTY OF UTAH ROUTE

The first of a new series of motorist's guide books, *Rainbow Roads Guide*, has just been published by Ward J. Roylance of Salt Lake City.

For his initial book in the series, the author has selected Highways 91, 89 and 191, extending from San Bernardino in California through the heart of scenic Utah to Yellowstone Park.

In limiting his first guide to a single main route with one alternative route, he has been able to provide the motor traveler with detailed information much more complete than usually is found in motor guides. Not only is the main highway logged in detail, but the interesting side-trips along the way

are mapped and described — Death Valley, Bryce, Zion, Cedar Breaks, Grand Teton and the Yellowstone parks and monuments are all given full page maps — the same kind of maps that are provided by the Park service at these recreational areas.

There is information about public camp grounds, and available hotel and motor court accommodations with the current rates charged at many of the hosteries. The book also includes a calendar of important entertainment events — fairs, festivals, shows and rodeos staged by the various communities along the way.

The 244 pages in the plastic bound book include 50 maps and numerous photographs of the scenic places along the way. Although not as well advertised as some of the other motor routes in the West, Highway 91 and its extension, Highway 191, comprise one of the most delightful motor trips in the West, and with Ward Roylance's book as a guide, the interest and pleasure of the trip will be more than doubled.

Published by Rainbow Roads, Salt Lake City. \$2.95.

MAN WHO FOUND INSPIRATION IN THE SOLITUDE OF A CABIN

Elliott Barker, author of *Beatty's Cabin* lists as his chief interests in life the protection and management of wild life, the control of predators, and forest conservation. The accuracy of this statement is abundantly clear to the reader of this book on the Pecos high country of New Mexico. Beatty's Cabin, built by a colorful old prospector, George Beatty, nestled in the heart of the high Pecos country just east of the Sangre de Cristo Mountains. In that wild, untamed wilderness, Elliott Barker explored, hunted, fished and learned at first hand the ways of its wild creatures, the natural phenomena which a hunter must know, the infinite variety in the changing of its seasons.

The author grew up on a little mountain ranch on Sapello Creek in the Sangre de Cristo Mountains. His accounts of bear and lion hunts are so replete with details and information that the reader feels he has been a member of the hunting party.

However, as the years passed, civilization began to encroach and Barker recognized that something must be done if future generations were to know anything of nature in an untrammeled and unspoiled state. So it

was a matter of great satisfaction to him when the Government in 1928 designated certain primitive nature spots as wilderness areas which must be left untouched.

Barker is a great believer in the restorative and inspirational value to be derived from periods spent in the beautiful solitudes. He rode on four expeditions into the Pecos high country with the Trail Riders of the Wilderness. Sponsored by the American Forestry Association, expeditions are made into remote untouched areas by men and women who love the wild. Barker gives appreciative praise to the various government agencies which are striving to conserve and protect our natural resources.

For those who must do their adventuring in an arm chair, *Beatty's Cabin* will give the authentic atmosphere of big game hunting at its best by a man who believes in conservation and protection of natural beauty spots for the use only of those who will not abuse the privileges granted them. Nature in its grandeur, whether of man, beast or mountain, breathes its free air throughout every page.

Published by the University of New Mexico Press. 220 pp. \$4.50.

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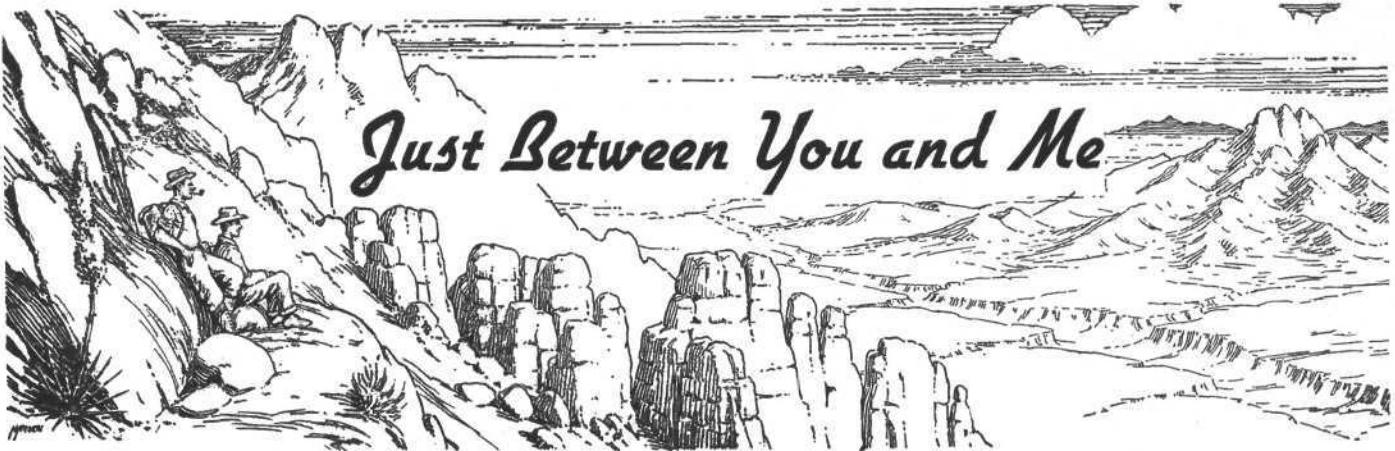
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tells the hard-hitting dramatic story of the West's most celebrated gunman. Sifting fact from folklore, Edwin Corle has given us a historically accurate and thereby doubly exciting account of the Kid's short and bloody career. Don't miss this, especially if you liked such Edwin Corle books as *PEOPLE ON EARTH*, *BURRO ALLEY* and *COARSE GOLD*.



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Just Between You and Me

By RANDALL HENDERSON

EARLY THIS MORNING there was a sprinkle of rain, and now the air is scented with greasewood or creosote bush. Many newcomers to the desert do not like the greasewood odor. But after a few years of living in the land of the creosote they learn to associate it with air that has been purified by rain—and the time comes when they not only accept it, they like it.

Rain on the desert—because it is so rare—is always an important event. It not only cleanses the air of the invisible dust particles which we call desert haze, but when the greasewood and the jojoba and mesquite—and even the rocks—haven't had a bath for months, the coating of dust that has accumulated is washed away and they are bright and shining and clean. If the rain is heavy enough, the lowly burrowed which for months has been leafless and apparently dead, comes to life with a new dress of green foliage and the desert landscape assumes a new color-tone. And so we look forward to the rain storms which often come in late summer, for somehow they freshen our lives just as they do the landscape around us.

* * *

It may not come this year or for 25 years, but sooner or later every locality in the desert is visited by one of those great cloudbursts that fill every dip and arroyo with a raging torrent.

Folks who haven't seen a cloudburst flood surging down through a desert canyon have missed a scene that is both fascinating and terrifying. Trees are swept away, precipitous rock walls give way and disappear in the angry torrent—and the rumble of boulder on boulder as they are swept along by the irresistible power of the current is almost deafening at the time.

And then in a few hours the sun goddess appears and smiles at the destruction she has caused.

These summer cloudbursts are not a total loss, despite the havoc they cause in the affairs of men. Each flood-swept canyon becomes a new and fertile field for the rock and gem collector, and for the prospector with his pick and pan. Desert trees and shrubs—regardless of the season—put on new coats of green, and many species of flowers spring from the ground to give bright color to the landscape. The desert is swept clean—so when you and I make pilgrimages to these canyons and dunes during the coming fall and winter months we will enjoy all the thrill of a first exploration.

* * *

In another month I'll be getting out the hiking boots and marking circles around some of the dates on my calendar—the dates scheduled for weekend trips into the desert canyons and mountains during the winter season. There'll probably be one or two excursions down across the border into Baja California where there are still many

lovely palm canyons that few humans have ever visited—a trip to Lake Havasu above Parker Dam where there is a gem-stone collecting area that can be reached only by boat—camping trips with the Sierra club members who are always finding delightful new places to explore—and perhaps a backpack jaunt up Horsethief creek in the Santa Rosas. The longer I live on the desert the longer grows my list of remote places I want to visit.

And of course I am going to resume my life-long search for a meteorite. I think I would get a bigger thrill in finding a chip off the moon or one of the distance stars than I would in finding a gold mine. I've been looking for one for 40 years—and haven't found it yet. Probably I've passed over hundreds of them—for the other planets have been pelting this earth with stone and metal fragments for millions of years. Two years ago Dr. H. H. Nininger of the American Meteorite Museum gave me a few tips which would help, including a piece of emery paper which I always carry with me. "If in doubt," he told me, "just rub the stone with this emery and if it is a meteorite it may disclose bright specks of nickel or iron."

* * *

Soon after this issue of *Desert Magazine* goes to press Cyria and I will be on our way to Prescott, Arizona, to witness the annual Smoki Dance, and then to the Inter-Tribal Ceremonials at Gallup, New Mexico. Perhaps we will have the opportunity to see the Hopi Snake dances—which remain an intensely religious ritual despite the pressure of white influence which would make it a commercial carnival.

I have a great admiration for the Hopi people. Because they love peace they migrated at some ancient time to a land so arid no other tribe would covet their meager resources.

Father Garces was the first missionary to pay them a visit—in 1776. They would have none of his religion and made it plain that he was an unwelcome visitor. Since then the Hopi clans have resisted all efforts to convert them to the Anglo-American's way of life. In an environment which no white man would find adequate or tolerable they have been self-supporting and self-sufficient.

It is not for their stubbornness that I admire them—for this is a changing world and no religion or political code can go on always without regard for the laws of adaptation. But there is something very sound in the Hopi creed for it has brought them health and happiness—and a greater degree of security than prevails over much of the rest of the world at the present time. Perhaps we could learn something from the Hopis. For those who would like to pursue the subject further I would recommend Walter Collins O'Kane's fine books: *Sun in the Sky*, and *The Hopis: Portrait of a Desert People*.

Time Has a Way

of changing things

Throughout the centuries tens of thousands of homes have been destroyed, billions of dollars lost, all because a small spark started a roof fire.

It was a beautiful Southern California summer evening. Bill Bruegger and Aust Barnes had just returned from their daily trade of painting. A problem confronted them. In a building where some types of flat paints were used, they also needed a fire-resistant covering. That evening they began their work and experiments.

That was three years ago. They have now reached their goal. The discovery made that evening developed into a new product that probably will be used by many millions of people throughout the world as time marches on. A compound from products of the sea—FIREFOIL was born.

You can make a series of blow torch tests, and wherever FIREFOIL is applied, you find this new fire resistant compound doing the job. Or, you can test wherever insulation is required, you will find this to be an astounding material, completely doing the insulation job at low cost. Yes, put it on your roof, you have no fire problems there. FIREFOIL can revolutionize the roofing industry.

Responding to the fast-growing demand for commercial uses for fire-retardant materials, authentic tests had to be made. The laboratories have made very satisfactory accelerated tests, showing excellent flame proofing, and remarkable insulation properties. The biggest factor was the report on the tremendous resistance to direct flame and heat. The tests on roofs, buildings, construction materials, and unusual insulation requirements, all have given concrete evidence as to the sound value of FIREFOIL. Reports are better than the fondest expectations.

The company formed for manufacturing and marketing through its national corporation, is in operation. The noted construction contractor, A. A. Wilder, President, Austing Barnes, Vice-President, and William C. Bruegger, Chairman of the Board of Directors. FIREFOIL will receive national distribution through franchises held by roofing firms, distributors and representatives.

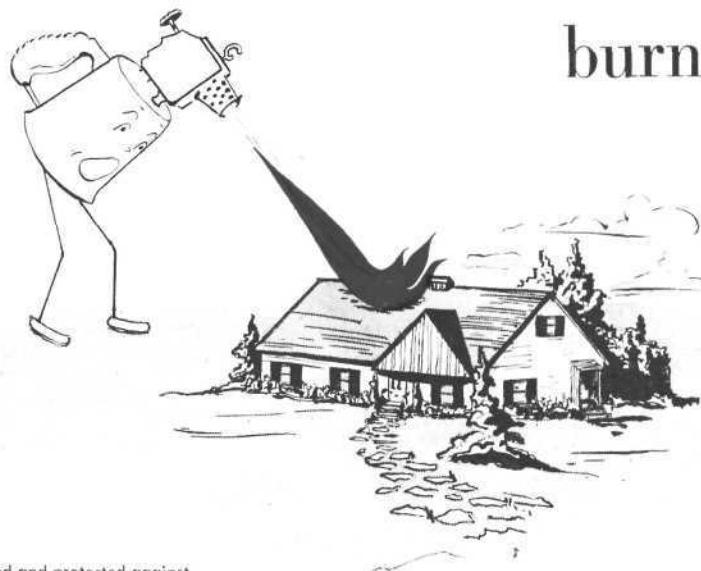
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